

THE
ANALECTIC MAGAZINE.

JANUARY, 1818.

ART. I.—1. *Vegetable Materia Medica of the United States, or Medical Botany.* By W. P. C. Barton, M. D. Number second, quarto.

2. *American Medical Botany, being a Collection of the Native Medicinal Plants of the United States, containing their Botanical History and Chymical Analysis, and Properties, and uses in Medicine, Diet and the Arts, with coloured engravings.* By Jacob Bigelow, M. D. Rumford Professor and Lecturer on Materia Medica and Botany, in Harvard University. Vol. 1. large octavo.

THERE can be no doubt but in such a country as this, so extensive, comprising such variety of climate and situation, so comparatively unexplored, so new even to its inhabitants—an inquiry into the medical and dietetic properties of the plants it contains, deserves to be pursued, and has strong claims to public encouragement. At the same time it should be kept in view in pursuing such an inquiry, that unless the tendency to extend the vegetable articles of the materia medica be kept under pretty strong control, there is hardly a plant of any description throughout the whole United States, but may take its place in such a publication. As the abbè Mably observed of the *eternelle histoire* of M. Gibbon, the medical botany may be continued without prospect of termination, and be left, like a Spanish game of chess, at the decease of the authors, a task to be continued by their posterity for generations yet to come. It is said of Solomon, that he spake of trees, from the cedar that is in Lebanon, even to the hyssop that springeth out of the wall: but the present occasion does not call upon us to follow such an extensive example.

We think it necessary to make these remarks at the outset of the labours of Dr. Barton and Dr. Bigelow, that they may not crowd their publications with articles of slight or dubious utility, or with plants that are inferior in medical virtues, to those in common use by the medical profession, and easy to be procured. The materia medica is already crowded with substances useless and inert; which fashionable physicians and young practitioners who seek popularity by recommending new medicines, have forced into the encumbered list. If, instead of doubling the number of plants used in medicine, nine-tenths of those commonly kept in the shops were struck off from the list, quite enough would remain for useful purposes.

Dr. Bigelow seems aware of this, but it may still be necessary to remind him occasionally of his own remarks.

Dr. Barton's first number contained

Chimaphila umbellata (Pipsissewa.)

Sanguinaria canadensis (Puccoon.)

Cornus florida (Dogwood.)

Triosteum perfoliatum (Feverwort.)

Gillenia trifoliata (Indian physic.)

Gillenia stipulacea (small flowered Indian physic.)

His second number contains

Magnolia glauca (small magnolia) very like Michaux's plate.

Liriodendron tulipifera (Tulip tree.)

Cornus sericea (Swamp dogwood.)

Symplocarpus fœtida (Skunk cabbage.)

Symplocarpus fœtida angustispatha (Purple-skinned skunk cabbage.)

Cassia marilandica (American Senna.)

Dr. Bigelow's first volume contains.

Datura stramonium (Thorn apple.)

Eupatorium perfoliatum (Thorough-wort.)

Phytolacca decandra (Poke.)

Arum triphyllum (Dragon root.)

Coptis trifolia (Gold thread.)

Arbutus uva ursi (Bear berry.)

Sanguinaria canadensis (Blood root.)

Geranium maculatum (Common crane's-bill.)

Triosteum perfoliatum (Fever root.)

Rhus vernix (Poison sumach or dogwood.)

The only plants therefore described by both these gentlemen, are the *Sanguinaria canadensis*, blood root or puccoon, and the *Triosteum perfoliatum*, feverwort, or fever root.

Let us see what is the value of the medical information presented by Dr. Barton's second and Dr. Bigelow's first number.

Magnolia glauca. It is an agreeable aromatic tonic bitter. So is the *Aristolochia serpentaria*: the *Contrayerva*: the *Cortex eleutheria*: the *Angustura*: the *Columbo*: the *Zedoary*, and many more equally trifling and useless; which of these does the *Magnolia* supersede either in quality or price?

Liriodendron Tulipifera. A tonic and sudorific. Sudorifics so frequently owe their virtues to the warm water employed in the decoction, that they possess, for the most part, very uncertain claims to their title. Is this plant better, if equal to the common decoction of the woods; sassafras, sarsaparilla, and mezerion? Dr. J. T. Young says, "I can assert from experience, there is not in all the materia medica a more certain, speedy, and effectual remedy in the hysteria, than the poplar bark combined with a small quantity of laudanum." So it is that young physicians write. In nine cases out of ten, what is usually called hysteria, arises from mere indigestion; sometimes, but seldom comparatively, from proper hysteric affections wherewith the digestive organs sympathise. At any rate, is not the active medicine here, the laudanum? Nei-

ther the one nor the other in a hysteric fit, is to be compared to a glass of hot toddy with nutmeg and ginger. Will the tulip tree do more than sage, or guaiacum?

Cornus sericea: a stimulant and tonic. Have we not at least twenty of equal power in use at present? Is it to be compared to the common barks, cinchona, eleutheria, winteranus, angustura, or even the common oak bark, neglected because it is so common?

Symplocarpus foetida. An expectorant; and from its stinking character, an antispasmodic. We are already in possession of assafœtida, camphor, and musk. As to the Rev. Dr. Cutler's reports of it in asthma, unless the Rev. gentleman had informed us what was the description of asthma to which it was applied, it amounts to nothing. It is but rarely that we can place full reliance upon the professional relations even of medical men: the relations of gentlemen, who are not of the medical profession, do not carry with them any authority.

Symplocarpus foetida angustispatha. The same remarks apply as to the preceding species.

Cassia marilandica. This amounts at best to a medicine of equal virtues with the common senna of the shops. If it can be afforded, as Dr. Barton says, at a fourth of the price, it would be of use; but of this, those who know the value of labour in this country will greatly doubt.

Hitherto, Dr. Barton's work has not presented us with any medicine that will supersede those of the same class commonly employed; and whose virtues and doses are well ascertained by extensive practice, and long experience. It may be of use, however, to show us, that the popular reputation of many plants highly spoken of, rests but on a very slight foundation, and that in the present state of the shops, they may well be neglected.

Dr. Barton's *descriptions uberiores*, are still liable to the same observations in this number, that were called forth in the review of the last. If he does not attend to the advice we took the liberty to offer, he may rely on it the character of the work will suffer.

Dr. Bigelow commences with the *Datura stramonium*, a plant of very decided properties as a poisonous narcotic, and likely therefore to be made useful in the hands of a cautious and judicious practitioner. But we have already so many medicines of this class, opium and its preparations, the poppy, hyoscyamus, belladonna, hemloc, digitalis, tobacco, arnica montana, hops, laurocerasus and others, that we have quite choice enough. It is however of some consequence to know that the use of *Datura stramonium* has relieved symptoms of the (spasmodic) asthma, unequivocally in the eastern states: and that it has been attended with success in chorea. Dr. Chapman's testimony to its use in dysmenorrhœa and siphilitic and scrophulous ulcers, is entitled to great consideration from the talents and extensive practice of the relator. The popular use of it in a salve, we well know to be inefficacious, nor is there any well settled reason for preferring it to the other medicines of the same class at present in use. But it is so power-

ful and so common, that experiments upon the application and exhibition of it, would still be desirable.

Eupatorium perfoliatum. This appears to be one of the feeble tonics and diaphoretics; without any decided character, and not worth further notice. We have already too many of them; medicines, that if they do you no good, will do you no harm, as the saying is. But the truth is, that few medicines are worth notice, that are not dangerous if incautiously exhibited. They promise to be useful in proportion to their violence and activity.

Phitolacca decandra. This is slightly emetic and cathartic; so slightly as to be worthless. We have taken it and seen it taken in large doses, as a remedy for rheumatism, with little effect. Its colour as ink, is an indelible dirty, dark brown, as we know. The red colour is fugitive with every known mordant. In page 43 it is said from the experiments of M. Braconnot, that the ashes when the plant is incinerated, afford 67 per cent of dried alkaline carbonate, and 42 of pure caustic potash. This is utterly incredible.

Arum triphyllum. It is impossible to say for what purpose this plant is introduced. The late Dr. Barton's recommendation of it in pthisis, had better have been omitted. He was apt to extol new articles of the vegetable materia medica, without much experience, or discrimination.

Coptis trifolia. Inferior to gentian and probably equal to columbo; not better than wormwood, or chamomile. It is no acquisition. We have cheap medicines of the same class, more efficacious. Columbo is of the same milk and water character with its introducer, Dr. Percival.

Arbutus uva ursi. This has been extolled in nephritic complaints, but without much reason. We have tried it largely. It is not quite so good as parsley root, or water-melon seeds, or daucus.

Sanguinaria canadensis. An unpleasant emetic, in large doses, not to be compared to ipecacuanha. It is used in the back country, infused in whiskey as a bitter: and as an excuse for dram-drinking in the morning.

Geranium maculatum, possesses virtues, about equal to those of kino, but far inferior to catechu. How can Dr. Bigelow say (p. 89,) that its doses are similar to those of kino and catechu, when the latter is so much more powerful and efficacious than kino? It ranks with the common blackberry root.

Triosteum perfoliatum produces the same effects with less certainty, and in an inferior degree to the ipecacuanha of the shops, and therefore will be no acquisition, until ipecacuanha fails to be supplied.

Rhus Vernix. Poison vine. Not useful as a medicine, possessing some of the qualities of a vegetable ink, and a black varnish: but inferior to the substances hitherto used for similar purposes.

In fact, the publications of Dr. Barton and Dr. Bigelow, so far as they have gone, only show that the substances they have introduced to our acquaintance, are little entitled to further notice. *Datura stramonium* may be an exception; we doubt, however,

whether this plant also, is not nearly worthless. On comparing these works with Woodville's, we see no cause of complaint. There is more care, more caution, more knowledge in the American works now under review. If our country does not produce plants of superior efficacy to those imported, it is not the fault of Dr. Barton or Dr. Bigelow; and it is of importance that we should know all that is worth knowing of the vegetables of our own country to which medicinal virtues are usually ascribed.

There are more chymical experiments on the plants introduced in Dr. Bigelow's than in Dr. Barton's work: but in fact, very little can be known of medicinal virtues from chymical analysis. Chymical investigations for the most part, are of use only to the pharmacopœist—the apothecary—the compounder of medicines: they are of use to indicate the methods of procuring and preserving the medical qualities of the plants in question, not to indicate those qualities. The chymical effects of a medicine on dead substances out of the body, is very different indeed from what they appear on living substances within the body. When a plant is introduced, however, in these works, the experiments that indicate its probable uses in the arts as well as in medicine, would be very acceptable. In this point of view Dr. Bigelow's book promises more than Dr. Barton's. The plates coloured under the inspection of the latter gentleman, are decidedly more delicate and artist-like than those of Dr. Bigelow, wherein the tints are laid on with a very heavy hand.

Dr. Barton and Dr. Bigelow have both described the plants *Sanguinaria canadensis*, and *Triosteum perfoliatum*. Our readers will require of us to enable them to judge of the comparative merits of these two publications, and therefore we present them with Dr. Barton's and then with Dr. Bigelow's, account of the latter plant.

TRIOSTEUM PERFOLIATUM.

FEVERWORT...RED-FLOWERED FEVER-ROOT.

Fever-root. Gentian. Bastard Ipecacuanha. Wild-Coffee. Dr. Tinker's weed. False Ipecacuan. White Gentian. Sweet-Bitter. Cinque. Perfoliate Fever-root.

TRIOSTEUM PERFOLIATUM. Lin. Sp. pl. 250. Amoen. acad. 4. p. 516. Dill. elth. 394. t. 293. f. 378. Mill. Dict. n. 1. Vahl. Symb. 3. p. 37. Gron. virg. ed. n. 31. Cold. noveb. 244. Willd. Sp. pl. Tom. i. p. 990. Shœpf. Mat. Med. Am. p. 23. Pers. vol. 3. p. 214. Ait. Hort. Kew. ed. 3. Vol. i. p. 381. Mich. Fl. Boreal. Am. vol. i. p. 107. Muhl. cat. Am. Sep. p. 23. Pur. fl. Am. Sep. vol. i. p. 162. Barton's "Collections," &c. vol. i. p. 29. Coxe's Am. Disp. ed. i. p. 679. ed. 3d. p. 634. Barton's Prod. fl. Phil. p. 31. Elliot, fl. car. &c. Nuttall, Genera Am. Plants.

TRIOSTEUM.

TRIOSTEUM. Lin. Cor. monopetala, subaequalis. Cal. longitudine corollae. Bacca 3-locularis, 1-sperma, infera.

Nat. Syst. Juss. *Caprifolia*. Classis XI. Ordo III.

TRIOSTEUM. L.* Calix 5-fidus, laciniis lanceolatis persistentibus, basi bracteatus. Corolla vix calice longior, tubulosa 5-loba inæqualis. Stamina 5, non exserta. Stigma crassiusculis. Bacca coronata obovata 3-locularis, 3-sper-

ma. *Herbæ erectæ; foliorum petioli infra juncti; flores plurimi axillares sessiles.* Gen. Plant. de Juss. p. 211.

Classis *Pentandria*. Ordo *Monogynia*. Lin. Syst.

TRIOSTEUM PERFOLIATUM. T. foliis ovalibus acuminatis, basi abrupte angustatis, latius angustiusve connatis: axillis uni-plurifloris: corolla obscure purpurea. Mich. Fl. Boreal. Am. sub. synonym. T. maji.

SYNONYMA.

TRIOSTEUM majus. Mich. Fl. Boreali-Am. Vol. i. p. 107.

TRIOSTEUM foliis connatis, floribus sessilibus verticillatis. Vahl. symb. 3. p. 37.

TRIOSTEUM floribus verticillatis sessilibus. Mill. dict. n. 1.

TRIOSTEOSPERMUM, latiore folio, flore rutilo. Dill. elth. 394. t. 293. f. 378.

Houttuyn Lin. Pfl. Syst. 5. p. 612.

Breitblättriger Dreystein. Willd. (German.)

Habitat in America Septentrionali. 2

Folia perfoliata. Willd. Sp. pl. Vol. i. p. 990.

Pharm. *Triostei Radix*.

Qual. amara. odor. pl. nauseosus; sapor herbaceus.

Vis. emetica.

Usus: febres intermittentes, pleuritis. Schœpf. Mat. Med.

DESCRIPTIO UBERIOR.

PLANTA bi vel tri-pedalis, aliquanto rara, et tota interdum purpurascens. Radix perennis, horizontalis, elongata. Caules multi, simplices, erecti, cylindrici. Folia magna, oblongo-ovalia, acuminata et fere connata, in basi panduriforma terminata. Versus apicem, basi attenuata et amplexicaules; omnes subtus dense pubescentes, cum nervis et costis conspicue prominentibus. Folia in summitate, sub florescentia, minora sunt, et convoluta; postquam magna et purpurascencia. Flores in axillis foliorum, verticillatæ apparentes. Corolla vix calice longior, tubulosa, curvata, basi gibbosa, et apice in quinque lobis auriculatis, incisa; laciniae cordatæ et clausæ. Stamina quinque, in tubo corollæ tecta: Pistillum ultra corollam; stigma crassiusculum. Laciniae calicis quinque, persistentes, lineares, ciliatæ, et omnino plerumque purpurascences. Germen inferius, uno-bracteatum. Baccæ coronatæ, obovatæ, purpureo-coccineæ, tri-loculares, et semina tria dura complectens.

Barton's Flora Philadelphica, M. S.

‘**THE** root of *Triosteum perfoliatum* is perennial, horizontal, about eighteen inches or two feet long, three quarters of an inch in diameter, and nearly of a uniform thickness from the extremity to within two or three inches of the origin of the stems. At this place it is contorted, tuberculated, or gibbous, and of a brownish colour. The colour of the horizontal caudex is yellow-ochre without, and whitish internally; and the fibres which proceed from it, are of an ochroleucous hue. These are sometimes so large, that they may be considered rather as branches or forks of the main root. The plant is from two to three feet high, and bushy, several stems arising from the same root. In favourable situations I have seen it near four feet tall. The stems are about 3-8ths of an inch in diameter, simple, erect, cylindrical, pubescent, and of a green colour. The leaves are large, oblong-oval, acuminate, somewhat panduriform towards their base, where they become suddenly narrowed. They are mostly connate, until they approach the fourth pair from the top: these upper ones are more attenuated at their bases, and rather amplexicaule. The under surface of all the leaves is covered with a soft dense bluish-white pubescence, conspicuously apparent on the middle rib and nerves. On their upper surface, though the pubescence cannot be observed readily by the naked eye, it is discernible by the glass, more sparse than below. The nerves are numerous, and commonly al-

ternate, as respects their union with the costa. The two uppermost pairs of leaves are small and closely convoluted, while the plant is in flower. After the floescence is past, they are developed to the full size of the others, or become rather broader at their middle, and assume a brownish purple colour. I have sometimes observed the whole plant of this hue, though in general it is confined to the upper portion. The flowers are axillary, sessile, and arranged in triplets round the stem, appearing whorled. The corolla is reddish purple above, striated below with lake, blended into white, and every where covered with a dense pubescence. It is tubular, curved and widest at the top, where it is divided into five auriculated segments or lobes; the laciniae being cordate and closed on each other. The lower end of the tube terminates in an abrupt gibbosity, which is articulated with the germ. The stamens are five in number, inclosed within the corolla, and alternate with the lobes or laciniae. The pistil is somewhat longer than the stamens, and appears conspicuously above the corolla. Stigma oblong. The calix is composed of five linear segments obscurely ciliated on their margins, of a dark purplish colour, and half an inch long. The germ to which they are articulated, is beneath; and garnished with a single green bract, longer and broader than the calix leaves, and proceeding from its base. The berries succeed to the flowers, generally in the number of six to each axil; sometimes there are but three, but occasionally nine, in luxuriant plants. They are ovate, of a dark purple colour, with three divisions, and contain three hard seeds. They ripen in September.

This plant is somewhat rare, though I have seen it on the rocky limestone hills a little beyond the Maryland line, on the York and Baltimore road, in great quantities. It is also very frequent in the hilly woods bordering the Conestogo Creek, near Lancaster in Pennsylvania; and remarkably abundant in a thicket about one mile from the town of Lancaster, on the seat of Charles Smith, Esq. In the vicinity of Philadelphia it is very rare. Indeed I have only found it in a wild state, on the Schuylkill, near Lemon-hill. It delights in rich limestone soil, on rocky or stony ground, preferring the shade; but is often found in different situations. Its range is, from the northernmost state of New-England to Carolina; and probably further south. Flowers in June.

Medical Properties.—*Triosteum perfoliatum* is a mild cathartic, and it is for this virtue that the plant is here noticed. I am aware that Shoepf speaks of it as an emetic only, and alludes to its use in intermittent fevers and pleurisy. One of the common vulgar names also, Bastard Ipecacuanha, indicates the well-known emetic power which it unquestionably possesses. But it is only in large doses that vomiting is produced. In the quantity of twenty or thirty grains it is a good cathartic. It has been said on some occasions to operate as a diuretic;* but professor Barton who observed this effect, justly remarks that this may have been only an accidental circumstance, rhubarb having been known by C. Piso, to produce the same effect.† The part of the plant used for medical purposes, is the cortex, or bark of the root. When the root is dry, it is brittle, and is pulverised easily. Perhaps it is not necessary to separate the bark from the ligneous part; for in all likelihood the whole root is endued with the same medicinal property. The autumn is the proper time to collect the plant for use.

* Barton's "Collections."

† Ibid.

Economical Use.—I learned from the late Rev. Dr. Muhlenberg, that the dried and toasted berries of this plant, were considered by some of the Germans of Lancaster county, as an excellent substitute for coffee, when prepared in the same way. Hence the name of wild coffee, by which he informed me it was sometimes known.

TRIOSTEUM PERFOLIATUM.

Fever root.

‘ This is rather a solitary plant, and though met with in most parts of the United States, it rarely, I believe, occurs in large quantities. About Boston it is found in several places at the borders of woods in rich, shady situations. Its common names are *Fever root* and *Wild ipecac*.* Pursh observes, that it is rare; and generally occurs in limestone soils. With us it flowers in June and ripens its fruit in September.

The genus *Triosteum* is found in the class *Pentandria* and order *Monogynia*. Its natural affinities place it among the *Aggregatæ* of Linnæus and the *Caprifolia* of Jussieu. It is characterised by a *monopetalous, five-lobed, unequal corolla; a calyx as long as the corolla; and a berry with three cells and three seeds*. The species *perfoliatum* differs from the rest, having its *leaves connate, and its flowers sessile and whorled*.

The root of this plant is perennial and subdivided into numerous horizontal branches. The stem is erect, hairy, fistulous, round, from one to four feet high. The leaves are opposite, the pairs crossing each other, connate, ovate, acuminate, entire, rather flat, abruptly contracted at base into a sort of neck, resembling a winged petiole. This portion varies in width, as Michaux has expressed it, “*foliis latius, angustiusve connatis*.” In general it is narrow when the plant is in flower, as represented in the figure; and wider when it is in fruit. The flowers are axillary, sessile, five or six in a whorl, the upper ones generally in a single pair. Each axil is furnished with two or three linear bractes. The calix consists of five segments which are spreading, oblong-linear coloured, unequal, persistent, Corolla tubular, curving, of a dull brownish purple, covered with minute hairs, its base gibbous, its border open and divided into five rounded, unequal lobes. Stamens inserted in the tube of the corolla, hairy, with oblong anthers. Germ inferior, roundish; style longer than the corolla; stigma peltate. The fruit is an oval berry of a deep orange yellow,† hairy, somewhat three sided, crowned with the calix, containig three cells and three hard, bony, furrowed seeds, from which the name of the genus is taken.

This plant was made the subject of an interesting communication to the Linnæan society of New England, by Dr. John Randall. The experiments made by him on its medical uses and pharmaceutical prepa-

* The quaint appellation of Dr. *Tinker's weed*, which has been bestowed on this plant, is thus gravely commented on by Poiret. “*Ses racines et celles de l'espece précédente passent pour émétiques; le docteur Tinkar est le premier qui les a mises en usage, et qui a fait donner à cette plante par plusieurs habitants de l'Amerique septentrionale le nom d'herbe sauvage du docteur Tinkar.*”

† Pursh observes that the flowers and berries are *purple*. In all the specimens I have examined, which have not been few in number, the fruit was of a bright orange colour. If Pursh has seen a plant with purple berries, it is probably a different species from the true plant of Linnæus and Dillenius: which had “*fructus lutescentes*.”

rations were numerous, and serve to throw much light on its properties. In trying the solvent powers of water and alcohol, he found that water afforded a much greater quantity of extract than alcohol, and that the spirituous extract was perfectly soluble in water; whence he infers that no resin in a pure state exists in the plant. He discovered no volatile oil by distillation, nor any other principle of activity in water distilled from the plant. He concludes also, that no free acid exists in this vegetable. Of the different parts submitted to examination, the leaves yielded the greatest quantity of soluble matter, but the root afforded that of the greatest activity. By decoction and evaporation with water an ounce of the dried stalks afforded one drachm of extract; an ounce of the dry roots, two drachms and two scruples, and the same quantity of leaves half an ounce. From a similar treatment of equal portions with alcohol, rather more than half the above quantities of extract were obtained.

The sensible qualities of the root were found essentially different from those of the herb. Both of them possess a large share of bitterness, but the root has also a nauseous taste and smell, somewhat approaching to those of ipecacuanha. The medical properties of the *Triosteum* are those of an emetic and cathartic. In the above dissertation, about thirty cases are detailed, in which different preparations and quantities of the article were given to various persons with a view to their medicinal effects. The general inference to be made from them is, that the bark of the root acts with tolerable certainty as an evacuant upon the alimentary canal, both by emesis and catharsis. When given alone, either in powder or decoction, the instances of its failure were not many, and when combined with calomel, its operation was attended with a certainty, hardly inferior to that of jalap. The aqueous and spirituous extract of the root were likewise efficacious, and nearly in an equal degree. Preparations made from different parts of the herb possessed much less activity, the decoction of the leaves operating only as a diaphoretic, and that of the stalk producing no effect.

The late professor Barton of Philadelphia, in his collections toward a *Materia Medica* of the United States, speaks of this plant as a mild and good cathartic, sometimes operating as a diuretic and in large doses as an emetic.

My own experience with this plant has not been extensive, yet sufficient to satisfy me of its medicinal power. Where I have administered it, it has generally proved cathartic, a larger dose however being requisite for this purpose, than of jalap or aloes. It has sometimes failed to produce any effect, and I am inclined to believe that its efficacy is much impaired by age. Those who may incline to employ it, will do well to renew their stock annually, and to keep the powder in close stopped phials.

A dose of the bark of the root in powder is twenty or twenty-five grains, and of the extract, a somewhat smaller quantity.

BOTANICAL REFERENCES.

Triosteum perfoliatum, LIN. *sp. pl.* AITON *Hort. Kew*, i. 234.—PURSH. i. 162; —*Triosteum majus*, MICHAUX, *Fl.* i. 107.—*T. floribus verticillatis, sessilibus*, GRONOV. 31.—*Triosteospermum latiore folio. flore rutilo*, DILLENIUS, *Elth.* t. 283. f. 378.

MEDICAL REFERENCES.

SCHÖPF, 23.—BART. *Coul.* 29.

ART. II.—*Travels in the Interior of America, in the years 1809, 1810, and 1811; including a Description of Upper Louisiana, together with the States of Ohio, Kentucky, Indiana, and Tennessee, with the Illinois and Western Territories, and containing Remarks and Observations useful to Persons emigrating to those Countries.* By John Bradbury, Fellow of the Linnæan Society of London, Corresponding Member of the Liverpool Philosophical Society, and Honorary Member of the Literary and Philosophical Societies, New York, United States, America. Liverpool, printed for the Author, by Smith and Galway, and published by Sherwood, Neely, and Jones, London. 8vo. pp. 364.

IT is a curiosity natural to mankind, and particularly characteristic of minds aspiring after excellence, to desire to know the candid sentiments of others on matters that concern us, and the rank we hold in public estimation. The narratives of travellers contribute chiefly to the formation of that opinion, entertained by one people of another. If the sources of representation thus conveyed, be poisoned by prejudice or perverted by malice, an erroneous judgment must be formed, and the cause of truth is sacrificed at the shrine of hostility. When we meet with an impartial traveller, it is an acquisition to obtain his testimony. Of this description appears Mr. Bradbury; a plain, circumstantial writer, of no lofty pretensions, but deriving some title to attention, from the circumstance of having been selected, we understand, as a proper person, by the Linnæan Society, to make collections of botanical plants and seeds in the western hemisphere.

An introduction to Mr. Jefferson led our traveller to Monticello, where he was recommended to give a preference to the borders of the Mississippi for the prosecution of his labours. He proceeded accordingly to St. Louis, in Upper Louisiana, fourteen hundred miles above New Orleans, by the course of that river; and, subsequently, fifteen hundred miles farther, up the Missouri into the Illinois territory. Our naturalists will learn with interest, from Mr. Bradbury, that much yet remains to be done in the way of botanizing throughout those parts, that investigation would be amply repaid by the result, and that he passed a number of plants which may probably remain unknown for ages. Let us hope that he may be speedily followed up by others, actuated by equal enthusiasm and desire.

—juvat intactos accedere fontes,

Atque haurire, juvatque novos decerpere Flores.

The collection made during this excursion has been published in an appendix to the *Flora Americæ Septentrionalis*, but a catalogue of some of the more rare plants in the neighbourhood of St. Louis, and on the Missouri, is included, together with their *habitats*, in this publication.

There are many notices interspersed highly useful to those who contemplate a settlement in the remoter regions of the west, or desire to gather some information of the probable advantages attending the emigration of their connexions and friends to those parts. In addition to which, the politician may cull many facts of impor-

tance to his researches. Some extracts may be acceptable to our readers.

We could have wished that Mr. Bradbury had not adopted the form of a diary for the conveyance of information, as, though it may indicate a precision as to dates and facts, yet, in a book of travels, it is too frequently a vehicle for the detail of trifling incidents, uninteresting to graver readers, beside swelling the book to an unnecessary bulk, and enhancing the price, a high crime and misdemeanor in the literary code; since knowledge ought to be dispensed to as many classes of the community as possible, at the least possible expense. In the diffusion of information, we acknowledge no aristocracy; and nothing, perhaps, so much contributes to this evil, as books rendered unnecessarily costly.—It is with satisfaction we say it, that this is an offence confined, as yet, to the other side of the Atlantic.

We will appeal to Mr. Bradbury himself whether, on a revision of his book, he would not have wished such passages as these expunged:

P. 43. '11th, 12th, 13th, and 14th May. We had a fair wind, and employed our sail, wherefore I could not go ashore without danger of being left behind. During these days the bread was examined, and being found wholly unfit for use, it was thrown overboard.

'Dorion, our interpreter, came, but without his squaw, who, it was intended, should accompany us. They had quarrelled, and he had beaten her, in consequence of which she ran away from him into the woods, with a child in her arms, and a large bundle on her back.

'22d, 23d, and 24th. Almost incessant rain. We had not proceeded more than two miles, when our interpreter beat his squaw severely, and on Mr. Hunt inquiring the cause, he told him that she had taken a fancy to remain at the Osages in preference to proceeding with us, and because he had opposed it, she had continued sulky ever since.'

This gossip we will allow Mr. Bradbury to write to his wife, if he pleases, but not to print and pass off for valuable information. So far as dates may serve as an index to the seasons, and state of the weather at particular seasons of the year, the expense of their introduction will be cheerfully submitted to by a discerning public; but not when they become registers of a man's individual concerns. A meteorological journal might advantageously have been substituted for some matter of this kind; but we do not find even an average notice of the thermometer in the book! Still, there is much worth knowing, of which we had no previous account.

'Two hundred and forty miles from the mouth of the Missouri, stand the remains of Fort Orleans: near it is the mouth of La Grand Rivière, where I first observed the appearance of *prairie*, on the alluvion of the river. *Prairie* is the term given to such tracts of land as are divested of timber. In travelling west from the Alleghanies they occur more frequently, and are of greater extent, as we approach the Mississippi. When we proceed to the distance of two or three hundred miles west of that river, the whole country is of this description, which continues to the Rocky Mountains westward, and from the head waters of the Mississippi to near the Gulf of Mexico, an extent of territory which probably equals in area the whole empire of China. The territory west of

the Mississippi, belonging to the United States, and extending from that river to the Rocky Mountains has evidently two characters. The part which lies immediately on the Mississippi and extends from 100 to 250 miles westward from that river, has a thin covering of timber, consisting of clumps and of scattered trees. From the western limits of this region to the Rocky Mountains, the whole is one vast prairie, or meadow, and excepting on the alluvion of rivers, and, in a few instances, on the sides of the small hills, is entirely destitute of trees and shrubs. The extent of this region is not accurately known, on account of the real situation of the Rocky Mountains not being yet truly ascertained, but it appears from the account of hunters and travellers, that in some of our best maps and globes they are laid down considerably too far to the eastward. The course of the Mississippi is nearly from north to south, and its average longitude nearly 90° W. The coast of the Pacific, in the medium latitude of the Mississippi, from its source to its mouth, is about 130° W., a difference of 40° , making in that latitude the distance from the Mississippi to the Pacific to be 2124 miles. It is the opinion of all whom I have consulted, and who have crossed the Rocky Mountains to the Pacific, that from the eastern limits of that chain to the Mississippi, the distance is at least twice as great as from the western limit to the Pacific.* If this is admitted to be correct, the distance from the summit of the Rocky Mountains to the Mississippi is 1416 miles, from which, if 150 be subtracted for the half breadth of the chain, and 200 for the woody regions on the Mississippi, the breadth of the prairie will appear to be 1066 miles and its length from north to south, is at least 18° of latitude, or 1251 miles.

‘Excepting towards the foot of the Rocky Mountains, the whole of this extent is what is usually termed a plain, being destitute of those elevations that in other parts appear to have resulted from convulsions.

‘6th April: walked all day, and, in the afternoon, met the hunters, who had found a bee tree, so named from its hollow trunk containing a swarm of bees, and were returning to the boat for a bucket and a hatchet to cut it down. I accompanied them to the tree: it contained a great number of combs, and about three gallons of honey. The honey bees have been introduced into this continent from Europe, but at what time, I have not been able to ascertain. Since they have entered upon the fine countries of the Illinois and Upper Louisiana, their progress westward has been surprisingly rapid. It is generally known in Upper Louisiana, that bees had not been found westward of the Mississippi prior to the year 1797. They are now found as high up the Missouri as the Mahanation, having moved westward to the distance of six hundred miles in fourteen years. Their extraordinary progress in these parts is probably owing to a portion of the country being prairie, and yielding therefore a succession of flowers during the whole summer, which is not the case in forests. Bees have spread over this continent in a degree, and with a celerity so nearly corresponding with that of the Anglo-Americans, that it has given rise to a belief, both among the Indians and the whites, that bees are their precursors, and that to whatever part they go, the white people will follow. I am of opinion that they are right, as I think it as impossible to stop the progress of the one as of the other.

‘23d May. When on the bluffs† yesterday, I observed in the river an

* Mr. Melish asserts, that one branch of the Missouri rises within four hundred and fifty miles of the Pacific ocean.

† As the term bluff may not be familiar to every reader, an explanation may be serviceable. The alluvion of the great rivers west of the Alleghanies is consider-

extensive bend, and determined to cross the neck. I therefore did not embark with the boats, but filled my shot pouch with parched corn, and proceeded. In about two hours, I had entirely passed the range of hills forming the boundary of the Missouri; and, as I had before experienced, found the soil and face of the country to improve very much as we leave the river. The hills, with the intervening valleys, were covered with the most beautiful verdure. I continued to travel through this charming country, and shot several prairie hens (*tetrao umbellus*), on which I made an excellent supper. On reaching again the bluffs of the Missouri, among a number of new plants, I found a very fine species of *ribes*, or currant.'

It appears that the Missouri Fur Company trade with the Indians by means of agents scattered over the extreme west. The species of goods most in demand are rifles, powder, ball, knives and spirituous liquors. Mr. Bradbury has known more than 1000 pounds of jerked buffalo meat obtained in barter with the Sioux for as much rum as cost two dollars. The proper season for jerking buffalo meat is in autumn, when the quantity of tallow or fat is very great. It of course begins to diminish when food becomes scarce. As the same obtains in a number of animals, by climate and habit ordained to procure abundance of food in summer, and to suffer great privations in winter, this collection of fat seems to be a kind of reservoir, containing the means of supplying chyle, which is taken up by the absorbent vessels and returned into the system when necessary. The meat is cut into slices, exposed to the sun, until the juices are completely dried up, which is termed jerking, then packed away for use.

Of the state of medicine among the Indians, we have an account far too slender to satisfy our curiosities. With them the down of reedmace (*typha palustris*) is used in cases of burns or scalds. A species of *artemisia*, common on the prairies, and known to the hunters by the name of hyssop, attracted our author's notice; but a principal article in Indian pharmacy, according to his account, is a species of wall-flower, in character agreeing with *cheiranthus erysimoides*, beside which, two new species of *astragalus*, some roots of *rudbeckia purpurea*, and a new species of *amorpha*, used in cases of cholic, are mentioned.

In an appendix of nearly half the size of the book, we are presented with a specimen of Indian eloquence, certainly marked with some fine traits of feeling and sublime idea. It is an oration delivered by a warrior over the body of his deceased chief, in presence of the American officers, who had caused military honours to be paid at the funeral, which they attended with a detachment of troops under their command.

ably lower than the surrounding country, and is of a breadth nearly in the ratio of the magnitude of the river. That of the Missouri is from two to six or eight miles in breadth, and is, for the most part, from one hundred and fifty to three hundred feet below the general level of the country. The ascent from this valley into the country is precipitous, and is called "the bluff." It may consist of rock or clay. Betwixt these bluffs the river runs, in a very crooked channel, and is perpetually changing its bed, as the only permanent bounds are the bluffs.

'Do not grieve—misfortunes will happen to the wisest and the best of men. Death will come and always comes out of season;—it is the command of the Great Spirit, and all nations and people must obey. What is passed, and cannot be prevented, should not be grieved for. Be not discouraged or displeased then, that in visiting your father here, you have lost your chief. A misfortune of this kind may never again befall you, but this would have attended you perhaps at your own village. Five times have I visited this land, and never returned with sorrow or pain. Misfortunes do not flourish particularly in our path—they grow every where. (*Addressing himself to governor Edwards and colonel Miller.*) What a misfortune for me that I could not have died this day, instead of the chief that lies before us. The trifling loss my nation would have sustained in my death, would have been doubly paid for by the honours of my burial—they would have wiped off every thing like regret. Instead of being covered with a cloud of sorrow—my warriors would have felt the sunshine of joy in their hearts. To me it would have been a most glorious occurrence. Hereafter, when I die at home, instead of a noble grave and a grand procession, the rolling music and the thundering cannon, with a flag waving at my head, I shall be wrapped in a robe, (an old rope perhaps) and hoisted on a slender scaffold to the whistling winds, soon to be blown down to the earth—my flesh to be devoured by the wolves, and my bones rattled on the plain by the wild beasts. (*Addressing himself to colonel Miller.*) Chief of the soldiers—your labours have not been in vain:—your attention shall not be forgotten. My nation shall know the respect that is paid over the dead. When I return I will echo the sound of your guns.'

On the subject of a route to the Pacific, we have some interesting views presented, though perhaps somewhat conjectural, or at least not supported by the direct testimony we could desire. The author accompanied a party bound on that expedition, for several hundred miles. Five of the men engaged in it had traversed the rocky mountains in various directions, and the question of the best possible route in which to cross them was frequently agitated. They all agreed that the route pursued by Lewis and Clarke was very far from being the best, and that to the southward, where the Platte and Roche Jaune rivers rise, they had discovered one far less difficult. This information induced the leader, a Mr. Hunt, to alter the plan of his course, which had originally been to ascend the Missouri to the Roche Jaune river, 1850 miles from the mouth, and at that place he purposed to commence his journey by land. It was afterwards concluded that it would be more advisable to abandon the Missouri at the Aricara Town, 450 miles lower down the river.

A journey across the American continent, according to the information of hunters and others, appears by no means so arduous if shaped more to the southward. Mr. Brackenridge, in his "Views of Louisiana" corroborates this opinion.

"The route taken by Lewis and Clarke across the mountains was, perhaps, the very worst that could have been selected. Mr. Henry, a member of the Missouri company, and his hunters, have discovered several passes, not only very practicable, but even in

their present state, less difficult than those of the Alleghany mountains. These are considerably south of the source of Jefferson river. It is the opinion of the gentleman last mentioned, that loaded horses, or even wagons, might in its present state, go in the course of six or eight days, from a navigable point on the Columbia, more easy than between those on the heads of the Ohio, and the Atlantic states. Mr. Henry wintered in a delightful country, on a beautiful navigable stream.

“An attempt is now making to form establishments on the Columbia, with what success is not yet much known. This has been undertaken by a company in the city of New-York, at the head of which we find Jacob Astor. Two vessels were despatched for the mouth of the river, with orders to commence an establishment. A party of about eighty men under the command of Wilson P. Hunt, and a brother of sir Alexander Mackenzie, who was formerly in the employment of the north west company, has proceeded across the mountains.”

The principal object of this company at present, is the establishment of a fur trade direct with China. The beaver, the valuable sea otter, and the fine furs which may be obtained in this country in great quantities, will undoubtedly produce considerable profits. To introduce returns into the United States across the rocky mountains, will be worthy of experiment. A shortening of the distance, by more than a thousand leagues, will certainly make it an object to lessen the expense and difficulty of transporting goods across the mountains and down the Missouri. It is satisfactory to add, that the colony at present forming, is under the protection and license of our government.

The mineral productions of the Illinois and Missouri territories afforded an abundant harvest for speculation and description, of which Mr. Bradbury has moderately availed himself. Extensive veins of iron ore abound on the Missouri, sufficient to supply the whole of North America with iron for many generations, and when we consider the abundance of coal, it warrants a presage that these objects will become, perhaps at no distant day, of vast national importance.

The lead mines on the Mississippi furnish a considerable freight to New Orleans. Mr. Bradbury is of opinion, that the lead extends to a very great distance beyond the limits of the *diggings*, which hitherto have been considered as comprising the mines. “I have seen,” he observes, “all the indications on the upper part of the Merrimac river, fifty or sixty miles west of the present workings, and still farther to the northward, at the mouth of the Gasconade, on the Missouri. It is supposed by some that it extends to the mines belonging to the Saukee and Fox nations of Indians, which are situated on the Mississippi, six hundred miles above St. Louis. These mines are known to extend over a space of eighty miles in length, and nine miles in breadth.

About fourteen miles west of the Ohio Saline, in the Illinois territory, there is a lead mine lately discovered. Some small excavations have been made, and a quantity of galena found.

The caves yielding saltpetre are found chiefly on Green, Tennessee, and Cumberland rivers, and afford this article in great abundance. Salt abounds in various parts of the western country. It is worthy of notice that gypsum and clay are found together with the salt deposit.

"Some of the isolated sand stone rocks are remarkable for their purity, being so white as to resemble exactly the purest lump sugar. These would furnish an excellent material for the manufacture of glass. When the subterranean geography of this country shall become better known, it will probably be found to be one of the most interesting in the world."

Such a declaration from one qualified to conduct mineralogical inquiries, is highly important, and affords an unbounded prospect of future national wealth and resources. Succeeding geologists may do much. Fortunately for the progress of the pursuit, it is susceptible of division into many different departments, several of which are capable of being extended by mere observation. To reduce the general and grand arrangements of nature to a system, demands a total devotion of time and an acquaintance with almost every branch of experimental and general science, and can be performed only by philosophers; but the facts necessary to this great end may be collected without much labour, and by persons attached to various pursuits and occupations; the principal requisites being minute observation and faithful record. The miner, the quarrier, the surveyor, the engineer, the collier, the iron smelter, and even the traveller in search of general information, have all opportunities of making geological observations; and whether these relate to the metallic productions, ores, rocks, strata, or coal of any district, to the appearances and forms of mountains, the directions of rivers, and the nature of lakes and waters, they are worthy of being accurately noticed. Mineralogical maps of districts might thus be supplied, an object of importance to the scientific world, and a fund of practical information might be obtained, applicable to purposes of public improvement and utility.

Let us now hear Mr. Bradbury's opinion of emigration to the scene of his labours, on which he may be expected to be good authority. "There is no part" says he, "of the western country that holds out greater advantages to the new settler than the Missouri territory. It is inferior to none in point of soil or climate, and has a decided advantage over the country on the Ohio, as the transit to New Orleans may be made at any season of the year; whereas the Ohio is not navigable during the months of August, September, and October. It is also from 600 to 1000 miles nearer to that city than the upper part of the Ohio. Opportunities of purchasing settlements or plantations already formed, are very frequent, and on very moderate terms, as the rage of retiring back prevails here in as great a degree as in the other new countries.

"St Louis, the capital of this territory, is very pleasantly situated on the Mississippi, about eighteen miles below the mouth of the Missouri, in latitude 38 degrees 5 minutes, and longitude 89

gress 55 minutes W. It has a decided advantage over all the other towns, on account of its being situated on a rock but little elevated above the high floods of the river, and immediately on its border. Such situations are rare, as the Mississippi is almost universally bounded either by high perpendicular rocks or loose alluvial soil, the latter of which is in continual danger of being washed away by the annual floods.

In the reclaiming of wild land, or the forming of a plantation from a state of nature, the trouble and labour here is much less than in the woody regions, as the trees in this quarter are not more abundant on the upland than would be necessary for fuel and for fences. They naturally stand at a sufficient distance from each other to admit a fine undergrowth of grass and herbage. This country, as well as the whole western territory, will reap incalculable benefit from the application of steam-boats on the Mississippi. Of these several are now building in the different ports of the Ohio, a mode of conveyance which will also be much facilitated by the abundance of coal so universally spread over these parts.

In an agricultural point of view, the westward may be divided into three regions, suitable for the culture of the great staple articles, sugar, cotton, and corn. The sugar region extends from the coast to latitude $31\frac{1}{2}$ degrees; the cultivation of this article is rapidly increasing, and many of the planters have already made large fortunes.

‘The region proper for the cultivation of cotton, and too cold for that of the sugar-cane, extends from $31\frac{1}{2}$ to about 36 degrees of latitude: the species cultivated is *Gossypium annuum*. It will grow many degrees north of 36; but will not yield a sufficient crop, nor is the cotton so good, for the following reasons:—of the pods containing the cotton, the terminal pods of the principal branches are the first ripe: the next in succession are those of the secondary branches, which are followed by those of the tertiary ones, &c. &c.; but in each successive generation, the number is increased in something like the ratio of a geometrical progression. In the northerly part of the cotton region, the winter comes on before the cotton in the pods on the lateral branches is ripe, and a great portion of the crop is destroyed, which a few degrees further south would have been ripened. But the avarice of some planters prompts them to continue the gathering of their crops too long, and the quality of their cotton is deteriorated thereby, as the sun is too feeble to give the last part of their crop sufficient strength. The culture of the cotton plant is not attended with much trouble. The seeds are planted from 3 to $3\frac{1}{2}$ feet asunder; and after the plants have acquired a little strength, they are weeded and earthed up: no further care is required until the gathering of the pods commences. The cotton is then separated from the seeds by a machine, called the *saw gin*.

‘From observation I am led to believe that the staple of cotton is sometimes injured in the gin; and as this machine is now universally used to separate the cotton from the seed, I shall describe it. The saws are circular, about six or eight inches in diameter, they are made of thin steel plate, and are toothed like those used for cutting wood,

excepting that they make a more acute angle with the radii. Twenty-four, thirty, thirty-six, or more of these saws are placed on an iron shaft, at about one inch asunder. This shaft is fixed in a frame, three feet, or three feet six inches high, and parallel to it is placed a trough, not unlike a manger. One side of the trough is composed of thin plates of iron, exceeding in number that of the saws by one. This admits one of these plates betwixt each two saws, and they are so near each other as barely to admit the saw to pass between them. A fourth part of the saw works within the trough. Beneath the saws a cylindrical brush turns the same way, but with greater velocity. On the end of the shaft on which the saws are, there is a fast and a loose pulley for driving the machine, with a belt for stopping it at pleasure. When the gin is intended to be set to work, a quantity of cotton, as taken from the pods, is thrown into the trough, and the belt is put on the fast pulley. The saws, in passing through the troughs, continue to load their teeth with cotton, which is instantly thrown off by the brush, and in a few minutes nothing remains in the trough but bare seeds. The management of this gin is mostly committed to negroes, who, anxious to finish their task, drive the machine with too great velocity, by which, I conceive, not only the staple of the cotton is injured, but the green lumps, which are in fact the abortive seeds, are broken, and carried through along with the cotton. From this cause, in a great measure, arises the difference of quality of cotton from the same plantation.

‘As there are public gins established in almost every part, to which a planter may take his cotton, and have it cleaned and packed on moderate terms, it is in the power of a poor man to turn cotton-planter; and if he has a numerous family, so much the better, as females, and even children, can be employed in gathering the pods, and in taking the cotton from them. If he settles on wild land, he can enter upon the culture of cotton with more facility than on any other crop, as the ground requires less preparation.

‘This part of Louisiana as yet contains but very few white settlers, although, for the most part, the soil is excellent, and the climate charming. Two very large rivers, Red River and the Arkansas, enter the Mississippi in this region, and run their whole course through it: they are both navigable to the confines of the internal provinces of New Mexico, and furnish to those parts the best means of communication with the ocean. Of these means, when Mexico shall break its chain, it will avail itself, and this will become one of the richest and most valuable parts of the United States.’

“I must pronounce the soil to be excellent, and in almost every part where I saw it in a state of nature, it was covered with the finest verdure imaginable. The stratum immediately below the vegetable soil is almost universally a very tenacious clay, and extremely well calculated to form a material for brick.

“The lands belonging to the United States Government are sold at one uniform price: viz. two dollars per acre at five year's credit, or one dollar sixty-four cents for cash. Opportunities frequently offer for purchasing from the *back-wood's-man* what he calls his *improvement*, which consists perhaps of a log-house, a peach, and perhaps an apple orchard, together with from ten to thirty or forty acres of land inclosed and mostly cleared.”

The following remarks are worthy of particular notice.

"It is necessary to recollect that in the early part of the settlement of a country like this, a great number of things occur necessary to be done, which require the united strength of numbers to effect." p. 318.

"A great number of farmers have more land inclosed in fence than they can well manage: ask one of these the reason, he replies 'I want help.' Emigrants are urgently required, and if there can be any doubt of the wants of the country in this respect, its solution is to be here found.

"There are many objects, such as roads, bridges, &c. all of which are much sooner effected by persons having an union of interest, and of course an union of action.

"A combination of labour in numbers for the benefit of one individual is not confined to the new comer only, it occurs frequently among the old settlers, with whom it is a continued bond of amity and social intercourse, and in no part of the world is good neighbourship found in greater perfection than in the western territory, or in America generally." Additional testimony of this kind in favour of the disposition of the inhabitants will be read with pleasure. We cannot refrain from introducing some equally creditable to the impartiality of the narrator and the character of our country.

Page 305. "*I have travelled near 10,000 miles in the United States, and never met with the least incivility or affront.* I feel myself bound by gratitude and regard to truth to speak of their hospitality. In my travels through the inhabited parts of the United States, not less than 2000 miles was through parts where there were no taverns, and where a traveller is under the necessity of appealing to the hospitality of the inhabitants. In no one instance has my appeal been fruitless, although in many cases the furnishing of a bed has been evidently attended with inconvenience, and in many instances, no remuneration would be received. Other European travellers have experienced this liberal spirit, and some have repaid it by calumny. In respect to their moral character, my experience reaches chiefly to the western, middle, and some of the southern states. In the western states, I noticed that very few of the houses in which I slept, had either locks or bolts on the doors, and that the jails were in general without a single tenant.

"It has already been observed that no people discharge the social duties, as respects the character of neighbours, better, and I believe no country, having a population equal to the United States, can exhibit the records of their courts containing fewer instances of crimes committed against the laws."

Mr. Birkbeck, an English farmer, whose notes on a journey to the Illinois territory we had occasion to remark upon in our last number, fully seconds this opinion of his countryman in every respect. He says, "but, what is most at variance with English notions of the American people, is the urbanity and civilization that prevail in situations remote from large cities. In our journey from Norfolk on the coast of Virginia, to this place, in the heart

of the Alleghany mountains, we have not for a moment lost sight of the manners of polished life. Refinement is unquestionably far more rare than in our mature and highly cultivated state of society, but so is vulgarity. In every department of common life, we here see employed persons superior in habits and education to the same class in England."

Again:

"of all the unfavourable imputations on the American character, jealousy of strangers is surely the most absurd and groundless. The Americans are sufficiently alive to their own interest, but they wish well to strangers; and are not always satisfied with wishing, if they can promote their welfare by active services."

Page 103. "I have good authority for contradicting a supposition that I have met with respecting the inhabitants of Indiana, that they 'are a lawless, semi-barbarous people, dangerous to live among.' On the contrary, the laws are respected, and effectual, and the manners of the people are kind and gentle to each other and to strangers."

Page 123. "We are at Princeton in Indiana, a town which will be soon three years old. The people belong to old America in dress and manners, and would not disgrace old England in the general decorum of their deportment. It can boast as many well informed genteel people, in proportion to the number of inhabitants, as any county town I am acquainted with, and there is not one decidedly vicious character, nor one that is not able and willing to maintain himself."

In passing from Mr. Birkbeck, we would express our anticipation of much solid benefit from his experience and conduct in the parts where he has settled. He is a man, we should judge, of vigorous and enlarged mind. His recommendation in favour of associations, as the surest means to prevent disappointment to emigrants and advance the interests of the whole, has our entire concurrence. On this point too he confirms the preceding remarks of Mr. Bradbury.

As emigration is now a theme of very general interest, publications tending to throw any light upon the subject, will be read with avidity, when they communicate information equivalent to the expense of their purchase. For the details we must refer to the works themselves. We collect, generally, that a settlement in the Missouri or the Illinois territory is preferable, *cæteris paribus*, in the ratio of its distance from that great mart of western produce, New Orleans—that, without some capital for the purchase of land, the emigrant unless he be a mechanic, or an associate with others, might repent the cost of his journey; and moreover that, if he look for present gain from agricultural pursuits only, he will infallibly be disappointed. He can only expect that the extent and period of his reward will be proportioned to the exertions of his industry, and the scale of his "improvements," together with the growth of population, and the demand for cleared lands. To bring wood land into a state of cultivation, he must expect to undergo many hardships and endure many privations, but the state of ease, secu-

riches, and independence, which will assuredly attend the patient efforts of sober industry, must in due season arrive to compensate past toils.

That produce of every kind of the nature of provision will, for a very long time, remain low, must be calculated upon from the following considerations. First, the distance from a foreign market, causing a great expense in exportation. Secondly, the predominance of scattered population employed in farming over that which is condensed in towns; and thirdly, the vast quantities of land remaining west of the Alleghanies still unoccupied; yet, the accumulation of property by the regular and rapid advance in the value of land, forms more than an equivalent to the savings of the labourer or mechanic. Upon these terms, he may make up his mind, and look for the illustration of the truth in the testimony of every candid man acquainted with that country.

On the whole, we are disposed to look favourably upon Mr. Bradbury's labours, and to encourage him to pursue a path so happily chosen, as that of developing the resources of the highly promising region he describes.

His book compressed into half of its present size, would bear a reprint in this country—devoided of common-place matter, and directed solely to purposes of superior utility. He has chosen a wide field, and his design is worthy of an active, enterprising, enlightened mind. If our countenance can cheer his laudable endeavours, he will carry with him its smiles, and if one ray of consolation be wanting to kindle zeal, he will find it in the increasing interest of the public in these inquiries, and, in connexion with his own immediate benefit, the growing magnitude and decided importance of the consequences involved in this subject.

ART III.—*Outline of the Revolution in Spanish America; or an account of the origin, progress, and actual state of the war carried on between Spain and Spanish America, containing the principal facts which have marked the struggle.* By a South American. Fata viam invenient. Æn. lib. 10.

THE perusal of this "outline," has altered in a great measure our view of the contest in South America. Hitherto the unconnected, and, indeed, very limited information we possessed on the subject of the existing war in that country, prevented our forming as correct an idea as to the probable result as could be desired. Our wish has always been, to be able to predict with some degree of certainty, the termination in favour of the South Americans, of the second war in America, that has had independence for its object. We are, perhaps, more sanguine on the subject, than is consistent with the facts heretofore known to us; but we feel considerably more confident, since the perusal of this work, that our wishes may be gratified at no very distant day.

We feel a sensible pleasure in the view, and the imagination hardly knows where to stop, when the result of so many free establishments as are about to take place in South America, is taken into consideration: when we view the advancement that knowledge is likely to

receive; and, think of the accession which human happiness will derive from the amelioration of government. To the inhabitants of the United States, the spectacle of an oppressed people, endeavouring to become free and happy, must always be gratifying. The attention of a free people, cannot but be excited by events in themselves so likely to call forth sympathy, and doubly interesting in a political point of view, from the circumstance of a former similarity of situation, and the prospect of a like termination. The impression on the mind is increased by the knowledge, that they look to us as a people, once suffering and oppressed like themselves, now free and happy, in consequence of a successful resistance to tyranny. To Europe, the South Americans cannot look for sympathy, still less for assistance in a struggle for freedom; the dead palsy of despotism has seized on all; even in England, liberty is just about to expire. They must rely on themselves, and, in spite of the obstacles arising from three hundred years of Spanish despotism, work out their own salvation. We have no doubt of the fact of their ability, though we admit, that the view of affairs derived from the perusal of this little work before us, is by no means at first sight, encouraging. Still, however, we do not despair: for though dissention is a greater foe to a country endeavouring to shake off the yoke of an oppressive "mother country," than even a defective organization of the means of resistance; and though it may be said, that it is still likely to continue its baleful influence over the political destiny of the South Americans; yet we do not think, that the admission of the fact would be at all conclusive as to the question of independence. They have done too much already in spite of every disadvantage; individual exertion alone, has performed almost enough to permit the new republics to be numbered among the nations of the earth. Their distance from Spain, their visible improvement in political science, *their knowledge that they can be free*, all, if fairly considered, lead to the conclusion, that the event will take place whenever they will it. It is true, their progress has been retarded; and it will not be a difficult matter to account for the fact. Having reference generally to the circumstances attending our own struggle, we are rather apt to think a certain degree of political information as *absolutely* necessary to insure the success of a revolution. We are sanguine or not, in proportion to the degree of information that we suppose is possessed by a people of whose case we are judging. And it is true, that the information of a political nature, possessed by the people of the United States, before the commencement of the revolution, did enable them to interest the best and wisest men of the country we were resisting in our behalf. We will admit also, that *their* approbation was in itself support; and drew along with it, the admiration and assistance of some of the most powerful states in Europe; and that, with their help, we were still a long time in becoming free. These circumstances do not alter our opinion of the result of the contest in South America. Let us consider that the contest has continued long; but let it also be remembered, that Spain is *unequal* to

the task of subduing the patriots; and the fact is all important in forming an opinion. Kept in profound ignorance, as far as possible, by the Spanish government, considered as a degenerate race, and told by the country claiming their obedience, that* "it was unsuitable to promote learning in Spanish America, where the inhabitants appear destined by nature to work in the mines," the South Americans seem to have met with no sympathy in the "mother country," and to be but little noticed by the other powers of Europe. France indeed, under Bonaparte, intended to have used them as part of the means employed to subdue Spain; and England, seems to have once considered them, as objects of commercial cupidity. Abused at home, neglected abroad, they have shown a courage and perseverance worthy of a better fate—we trust it awaits them. They have also shown that they possess ample means for revenge and emancipation; success has generally attended their exertions, and little appears to be wanting to complete their wishes. The "passion of noble minds"—the desire of serving one's country, exhibits itself only in one way; they fight—and fight bravely too—but seem rather forgetful, that something more is requisite, than mere resistance to tyranny. The sacrifice of party feelings is to be made, before the efforts of valour can have their full weight, and we are sorry to say, that, at present we rather hope than look for such a degree of self-denial as is necessary for the purpose of producing union. But though we may regret the effect of dissension, yet we think, that the effects to be attributed to it, relate only to the retarding of the progress of South America in political science, as well as in the work of deliverance; and we do not think, that the result of the contest will be altered as regards old Spain. We have, however, exceeded the limits we had proposed to ourselves in noticing this work; the subject has long been an interesting one, but at present, we offer only the obvious reflections suggested by its perusal. We suppress our conjectures on the probable effect of the operation of South American independence, on our commerce and foreign policy; as conjectures, they are foreign to the view we are taking of the subject before us. We shall briefly, however, notice the nature and style of the present work. It is a connected narrative of the events that have taken place in that country, since the first appearance of any desire on the part of the inhabitants to do something towards ameliorating their condition. The moderation exhibited in relating the occurrences, and the information collected, with regard to the views and feelings of the South Americans, since the year 1780, will secure the work a favourable reception from the rational politician. The style we shall only notice, to say, that, criticism is disarmed by the circumstance of the author's appearing in a foreign dress; and, by his acknowledgment, that a correct taste will find much to pardon.

* Report made to the king by his Fiscal, on the petition of the city of Merida de Maracaybo, in Venezuela, to found a university.

A race of monkeys, filled with vice and ignorance, automaton, unworthy of representing, or being represented. Report of the Consulado of Mexico to the Cortes of Spain.

ART. IV.—*North West Passage.*

REASONING from the structure of the globe, individuals have, at different times, entertained the project of a discovery of a north west passage to Asia from Europe. The promise of advantages attending this scheme has sufficed to overcome the objections made to it, on account of the sufferings to be endured, the restricted season of a summer voyage, and the dangers of a frozen sea. To recount the several expeditions that have been set on foot for the purpose of this discovery, would be equally tedious and unprofitable. The most adventurous of these, appears to have been that of the British vessels *Dobbs* and *California*. The officers of the latter vessel being detached in the boats, reported, that they had found an inlet in the latitude of 64° N., and in the longitude of 32° E. from Marble island, which was three or four leagues wide at the entrance, but, on their sailing eight leagues up it, increased to six or seven leagues wide: that their course so far was N.N.W. by compass, but then it began to turn more to the westward; that, sailing ten leagues higher, it grew more narrow by degrees, till it became but four leagues wide; that, notwithstanding they could perceive the shores opening again, they were discouraged from proceeding farther, because that the waters, from being salt, transparent, and deep, with steep shores and strong currents, grew fresher, thicker and shallower at that height; that they met on their passage with many of the Esquimaux, who, for a trifle, had supplied them with a considerable quantity of fresh venison, and would have procured them more, as well as train oil, of which they had abundance, if they could have spared time. The issue of this inlet is unknown, but, it is probable, may have some communication with a great lake within land, having another outlet of the like nature, into the great western ocean. One circumstance, which they took notice of, gives some weight to this conjecture, viz., that the stream of ebb run faster by one half than in the Thames, for ten hours in twelve, though it was upwards of twelve miles broad, and for the last two hours the flood caused the water to stand still. And though the freshness of the water may seem conclusive against a passage, yet if it had been quite fresh, upon the surface, it would have been far from being so, because, as then it was the season when the snows melt and drain off the land, such a circumstance might have been expected, and is no more than what is found in the Baltic, and on the western coasts of Africa, after the rainy months. In the last place, it may be remarked, that though the tide of flood, coming from the west, might have afforded proof of a passage to another sea, yet a flood from the east is by no means such an absolute and direct proof to the contrary, because it is well known that, in the Straits of Magellan, the tides from the two oceans meet one another, and there is good reason to believe, that whenever a discovery is made of a north west passage, the like will also be found there.

A captain Fox, of the north west company, encouraged these adventures, by asserting that there might be an open sea, as at Cape Pinmark, which has not yet been disproved.

Ellis places the passage at a considerable inlet in latitude 64° , called Chesterfield's Inlet, though with no degree of certainty. He maintains his position by observing that, on examination, the ebb there set in very strong from the westward for eight hours; whereas it flowed but two; and with a motion incomparably slower. At the distance of ninety miles from the entrance, the water, though fresher than the ocean, had yet a very strong degree of saltness; now, if there was no passage, and the water ran down eight hours, at the rate of six miles an hour, and ran up only two hours, at the rate of two miles an hour, the water ought to have been perfectly fresh; since, as no salt water went up for more than two hours, none ought to have come down after two hours ebb, even if the ebb had been as slow as the flood; but as it was much more rapid, it ought to have been fresh sooner. It is certain, that, if a tide of flood had been met coming from the westward, it would have afforded an incontestible proof of a passage; yet the tide from the eastward does not prove the contrary; since, as before observed, the same occurs in the straits of Magellan, where the tide flows half-way from the eastward, and is there met by a flood from the west.

Another place assigned by Ellis for the discovery of this passage is Repulse Bay: the reasons in support of which are, the depth, saltness, and transparency of the water, together with the height of the tide propagated from thence, which circumstances seem to countenance such an expectation.

So far we are left to mere hypothesis. A Spanish author writes much more decisively, and professes to give an account of the transit being made to within sight of the coast of Asia. The extract has been handed to us by a learned friend, of which we insert a translation, "*Political History of the Ultramarine establishments of European Nations, by Edward Malo, of Lugue, duke of Almodovar,*" in 5 vols. Madrid, 1788. Vol. 4, page 584.

We will conclude this last chapter with the notice of an unpublished Narrative of a Voyage undertaken for the purpose of discovery, which surpasses in importance all that has been said in the four preceding chapters on so interesting a topic.

It is that of a voyage of captain Don Lorenzo Ferrer of Maldonado, in 1588, from the coasts of Spain to the straits of Anian, with his pilot, John Martinez, a native of Algarve, in Portugal. Sailing from Lisbon, he shaped his course to the north west, as far as the coast of Labrador, then passing Davis' straits, he found himself in the 75^{th} of latitude, in the frozen ocean, and steering west, one-fourth south, he entered the straits of Anian, which, according to his journal, is distant from Spain 1750 leagues by that navigation; from which he got into the southern ocean about 60° .

According to his observations, in going, he traversed the strait in February, and passed its outlet in March, during which he

suffered excessively in consequence of the cold weather, obscurity of atmosphere, and ice.

On returning, in the months of June and July, he enjoyed much fairer weather, and when he had passed the arctic circle at 66 degrees and 30 minutes, until beyond the straits of Labrador, the sun never disappeared from the horizon, and the heat was oppressive.

In the Pilots' Journal, the route is precisely laid down, the currents, soundings, and winds, as also the appearance of the coasts of Asia and America are well described.

In some points the course agrees with the observations made in Cook's voyage, and in other respects widely differs; for instance, that navigator placed the strait in 60 degrees, whereas it is ascertained to be in 66, a very remarkable difference.

It is impossible to establish an affinity between this voyage and others which have been attempted. It is indeed surprising how captain Ferrer could reach such a degree of altitude by this side of the globe locked in immense masses of ice. It is difficult to reconcile the identity of the outlet to the strait with the least resemblance that can be drawn from the narrow passages of that one in the north which is not half a mile wide; that which empties itself to the south is more than a quarter of a league, and expands as it draws nearer to the coast—a circumstance not at all conformable; on the contrary, it is entirely opposite to what the strait really is, its mean breadth being at least thirteen leagues.

The difficulty can only be resolved by supposing that the strait was not understood to be that of Anian, or that Ferrer must have gone to some other river that traverses a certain portion of the continent, facilitating his passage, and probably it was at the entrance of Norton or Cook's river, or some other passage of those latitudes of which we have no exact accounts.

The voyage of Ferrer carries with it all the characters of authenticity, he having neither interest nor motive for fiction, nor being acquainted with those observations which are to be found in the apocryphal relation of admiral Fonte, still unpublished, and buried in the dust of royal archives, experiencing that fate which unhappily befalls many others, through negligence and the mysterious principles of our own government.

The British legislature in 1746, offered a reward of twenty thousand pounds to any person who should discover this passage. Two vessels were fitted out by a private company, trading up Hudson's straits, and an adequate sum raised for the purpose by shares of 100 pounds each, but the scheme proved abortive.

For the guidance of future navigators, we subjoin a few hints calculated to aid their endeavours in this important object.

Steer your course to the entrance of Hudson's strait, and make any part of the north west coast from Pilot bay, in 62 degrees 30 minutes to Wager straits, touch at Deer sound in that strait, or at Marble island, in case the winds are more favourable, and the sea clear of ice. On falling in with land on that coast try the

direction and time of tide; and in case of meeting the flood from the westward, should you find a fair opening clear of the ice, sail into it with caution, keeping your boat ahead. In case you meet the flood tide, upon getting into an open sea, there will be strong probability of a passage, then steer south-westerly keeping the American coast in view.

If you find a south west tide of flood, after passing as far as 62 degrees north latitude beyond Wager strait, then you may be sure you have passed the most northerly cape of the north west continent of America and may make for a southerly latitude.

In case you should make a trial first at Pilot bay or Perkin's inlet near Marble island, and should there find a west or north west tide, and the opening continue westerly, the same instruction given as for passing Wager strait, will be equally proper to follow in that opening, since both must coincide in 62 degrees, for wherever, upon trying the tide, you are convinced it flows from the westward, and you find it earlier, you may depend on having an open and large passage, as the ocean cannot be far distant, to raise such great tides on the north west of the bay.

Black whales seen in August and September directing their course south-westerly, would be a farther demonstration of a navigable passage to the western ocean, to which they are directing their course.

ART. VI.—*Tribute to departed Genius. Notice of the late right honourable R. B. Sheridan.*

A DISTINGUISHED advocate of freedom, celebrated through life for generosity of sentiment, an ardent attachment to principles of general liberty, and unshaken constancy in the maintenance of political right, could not fail to be estimated in this country according to the real value of his exalted character. The fame of Sheridan has long been familiar to every intelligent reader of history or politics. Sunk from our gaze in an obscure and ambiguous shade, his closing scene excited the sympathy and interest of all who admired his talents and regretted their loss. The praises of Byron* have called forth our regrets anew, and embodied our feelings in his verse.

Sheridan, a privy counsellor to the king, and treasurer of the navy, rose from slender beginnings to the highest offices of the state. He was indebted for his success altogether to the brilliancy of his genius, the extent of his learning, and the acuteness of his judgment. His father was a lecturer on elocution and rhetoric, and published the pronouncing dictionary that bears his name. Of Irish extraction, he possessed the characteristic felicity of idea and fluency of expression that distinguish the eloquent sons of Erin. The subject of our notice inherited these qualities in an eminent degree, and gave early promise of future excellence. He was educated at Harrow, and afterwards at the university of Oxford. The countenance of Garrick, Johnson, Burke, and other literary

* See Monody in the present number.

characters of the highest distinction, contributed to introduce him into public life, and, when quite a young man, he was chosen to fill a seat in parliament.

The tenor of his political career is too generally known to need an elaborate description. Few men possessing such a liberality of political opinion, and so strenuous in the support of the people's rights, have attained such honours, and been called to fill such responsible offices in the government.

He was undoubtedly an orator of the first class, as a dramatist he was equally celebrated, and, with somewhat more industry and closer attention to the great models, might have adorned the highest walks of poetry, but he was unfortunately indolent, and given to a reliance on his own unaided powers, so that, from the influence of convivial excess, joined to irregular habits of application, unequal efforts cancelled the due returns of his exalted genius. He was, emphatically, no man's enemy but his own.

His speech on the impeachment of Warren Hastings, when he brought forward the principal charge supported for four hours and a half, was perhaps the sublimest effort of modern eloquence, of which we have any account. In a luminous range through all the principles of his art, he combined the polished elegance of Cicero, with the bold and impetuous fire of the Athenian orator. Then indeed,

Conviction flash'd upon the wav'ring mind,
Which, forc'd to feel the mighty art combin'd,
As through the compass of his words it ran,
Was lost in wonder at the powers of Man!

Many of his speeches in parliament have been candidly admitted by all parties to exhibit every oratorical effect the human mind is capable of suggesting—brilliant wit, depth, solidity and logical acumen. He possessed in a most extraordinary manner, the happy power of giving interest to the tritest subjects.

Though foremost in the ranks of opposition to the ministry, in which he was supported by his royal patron,* then warm in the assertion of liberal principles, Mr. Sheridan was conspicuous for his patriotism, his ingenuous support of sound political doctrine, and a constancy in the worst of times.

When the mutiny of the seamen at the Nore threatened the exposure of the empire to the ravages of an invading enemy, Sheridan, throughout this critical and distressing period, displayed a noble magnanimity of mind—a spirit so superior to that of party, as to command the admiration of his country, and the esteem of those who differed from him radically on general politics.

In the debate on this affair he came forward boldly and energetically to express his disapprobation of the conduct that had been pursued by the insurgents, and which he truly described as unfair and inconsistent with the brave, generous, and open character of British seamen. "If men were oppressed," he said, "they ought to be relieved by their country; but, however just their complaints might be, they ought to complain in a regular way.

* The prince of Wales.

Should there be men among them, as he believed there were, who advised the sailors to place their country in such peril as it stood in at that moment, for the mere purpose of carrying their objects, such men he hesitated not in pronouncing to be the worst of traitors. He suspected that there were persons of this description; and the evil was of the most alarming kind, when the foe were actually preparing to attack us in the most formidable manner. He thought that listening to the suggestions of such enemies to their country would never have been the fault of British seamen."

This open and candid declaration of his sentiments was extremely well calculated to produce a good effect upon the public at large, and, which was of still more importance, upon the minds of the unhappy men, who were then the dupes of intriguing characters. That it excited attention among the sailors, appeared from a notice of this speech in a printed appeal to the nation, issued at Portsmouth by the ringleaders, which, as Mr. Sheridan observed, was worded more in the language of a circulating library than of the forecastle.

The conduct of Sheridan on this occasion, will appear more truly disinterested and patriotic, when it is recollected, that he was universally known in the fleet and on shore, as the seaman's friend.

"I have ever been their friend," said he, in the house, "but never more so than at this period, in warning them against those artifices which have been practised to seduce them. When people tell them that the navy can be managed without subordination, they may as well tell them a ship can be managed without a rudder: they had better, indeed, pull down the shrouds and the masts, and lay them on the deck, than listen to such misrepresentation."

On a subsequent day, when the royal message was taken into consideration, recommending the adoption of some means for the prevention and punishment of all attempts to excite sedition and mutiny in the navy, though Mr. Sheridan expressed his doubts respecting the policy of multiplying penal statutes, he very patriotically declined breaking the unanimity of the house on that occasion, and made some observations which did equal honour to his judgment and his candour. "The fatal perseverance in the mutiny," he said, "had placed the country in a perilous situation; and no person could feel more indignation against the foul incendiaries who had caused it than himself. He was, at first, induced to think that the mutineers had acted under the impulse of momentary delusion and mistake; but their subsequent and continued conduct convinced him that something more than delusion had operated on their minds, and that a rooted spirit of disobedience had taken place of those manly and loyal sentiments with which they had been on former occasions constantly animated. If there was, indeed, a rot in the wooden walls of Old England, our decay could not be very far distant. The question, as it evidently appeared in his view, was not about this or that concession, but

whether the country should be laid prostrate at the feet of France. It was, in fact, a matter of no moment whether it was laid prostrate at the feet of monarchical or republican France; for still the event would be equally fatal, and equally destructive. The national commerce would necessarily prove the great object of the enemy's vengeance; and those mistaken men who might be instrumental in producing so dreadful a crisis, would suffer most essentially in their dearest interests."

On this occasion, he received many compliments, both in and out of parliament.

The inhabitants of London, and of the country many miles round, were thrown into great alarm by a tremendous conflagration which broke out suddenly in Drury Lane theatre, of which Mr. Sheridan was principal proprietor, about eleven o'clock at night, on the twenty-fourth of February, 1809. In a few minutes the whole building exhibited a mass of fire; and within the space of an hour the devouring element had reduced this splendid edifice to a heap of ruins.

Mr. Sheridan was then in the house of commons, where some of the members immediately, out of respect to him, proposed an adjournment; but though he was evidently much affected, he said, in a low tone of voice, that he did not think the misfortune, however heavy it might be to himself, was of so much consequence that the proceedings of the legislature should be thereby suspended. Soon afterwards he left the house; and finding on his arrival at the spot all exertions useless, he was prevailed upon to retire to the Piazza Coffee House, where every attention was shown him by several personages of the first distinction. His conduct on this occasion was cool and collected, and he displayed great fortitude in his remarks upon the event, observing that the misfortune was by no means an uncommon one, and might be remedied; but that he felt most from a consciousness that it was not in his power to save numbers from the inconveniences they must suffer by the want of employment, and who were in consequence threatened with inevitable ruin. His only consolation, he said, was in witnessing the attachment of his friends; and in the reflection that, as far as he had been able to ascertain, no lives were lost.

The total loss was estimated at three hundred thousand pounds, of which only thirty-five thousand pounds were insured; and that sum was instantly attached by the duke of Bedford as the ground landlord. It was said that Mr. Sheridan, in addition to his public damage, lost two piano-fortes, which had belonged to his first wife; a very valuable clock that had been the property of Mr. Garrick, and which was valued at seven hundred pounds; an organ that had once been Handel's, worth eight hundred pounds; and the whole of the elegant furniture, which, on the change of the ministry, was conveyed to the theatre from his residence in Somerset House.

On the affairs of Spain, he showed himself again the patriot, when others, usually the most vehement of the opposition, were

found to declaim against the expenditure of men and money in the peninsular war, then of doubtful issue. His good sense and liberality prevailed over the trammels and prejudices of party, and he seized an early opportunity of hailing the light that had shone forth in the south of Europe, as an encouraging appearance, of which due advantage should instantly be taken.

The speech of Mr. Sheridan was extremely animated, it exhibited a just, straight-forward, and enlarged field of policy. "Let Spain see," said he, "that we are not inclined to stint the services we had it in our power to render her; that we were not actuated by the desire of any petty advantage to ourselves; but that our exertions were to be solely directed to the attainment of the grand and general object, the emancipation of the world. But let not our assistance be given in dribblets; let it not be romantically and foolishly bestowed; let it be seen that the enthusiasm of the people had been fairly awakened; for without that our efforts could avail nothing. But if the flame were once fairly caught, our success was certain. France would then find that she had been hitherto contending only against principalities, powers, and authorities; but that she had now to contend against a people." Mr. Sheridan concluded by observing, energetically, "that the crisis was the most important that could be conceived, and that the stand made in the Asturias was the most glorious. He hoped that the progress of it would be closely watched, and that not a single opportunity would be lost of adding vigour and energy to the spirit which existed there. The symptoms could not be long in showing themselves; their progress must be rapid; probably, the very next despatch might be sufficient on which to form a decisive opinion; but if the flame did not burn like wildfire, it was all over. He hoped ministers would act as circumstances required; and if so, they should receive his cordial support."

The orator observed, that though it was not in mortals to command success, resistance was nevertheless indispensably necessary, even with the hazard of defeat: he then concluded in these animating words, which were his last in the house of commons. "But, if we fall, and if after our ruin, there shall possibly arise an impartial historian, his language will be, 'Britain fell, and with her fell all the best securities for the charities of human life, the power, the honour, the fame, the glory, and the liberties not only of herself, but of the whole civilized world.'"

Thus set this political luminary in the sphere which he had for so many years enlivened by the brilliancy of his wit, and often delighted by the power of his eloquence. Parliament was shortly after dissolved, and Mr. Sheridan again tried his strength at Stafford, where, however, notwithstanding the encouragement which he had experienced in the spring, he failed of success; nor had he influence enough to command a seat for any other place.

Under these depressing circumstances, did this extraordinary man retire from public life. The world to him was now in a man-

ner become a desert, in which there was little to cheer him amidst the gloom of neglect and the blast of penury; where he was continually tormented by the importunities of clamorous creditors, and pursued with unrelaxing severity by the harpies of the law.

Harassed by continual vexations, at a period when nature stands in need of repose and indulgence, it was not much to be wondered, that a man so long accustomed to convivial pleasures, should seek relief from the pressure of increasing embarrassments in the intoxicating means of forgetfulness. Unhappily, the early habits of Mr. Sheridan had been of a description that unfitted him to endure misfortune with that firmness, which, if it does not remove trouble, takes away its sting. When, therefore, the trying season came, it found him unprepared to resist the violence of the storm, and unable to direct his steps by any plan that could secure him from future calamity. In such a bewildered state, he increased his difficulties by the efforts which he made to elude them, and accelerated his dissolution, in endeavouring to drown the sense of his misery. Such is the fate of unhappy, eccentric genius, when unbridled by the restraints of prudence! as the winter of age approaches, we experience the mutability of political connexions, when reliance is placed on them alone, and the folly of neglecting those resources which can alone support the mind in every exigency, and minister to its comforts in the dreariness of solitude. Home, though the abode of domestic virtue and affection, was no longer safe to a person so well known and so much sought after by numerous applicants to avoid whose troublesome exigencies, and to gain a respite from anxiety, he passed much of his time abroad. Intemperance attended this course of life, and the effect of it upon his constitution, which had been naturally a very robust one, soon appeared in his countenance and manners, he was now sinking rapidly into the lowest state of human declension! at length his digestive powers were completely impaired, his memory was affected, and the symptoms of organic disease manifested themselves in a swelling of the extremities which soon left nothing for hope.

The complication of disorders multiplied rapidly, and he was confined to his room, where, to aggravate the wretchedness of his situation, and the distress of his family, an officer forced his way and arrested him in his bed. After remaining a few days in the house, this callous being signified his intention of removing the dying prisoner to a spunging-house, which resolution he was only prevented from carrying into execution by the interposition of Dr. Bain, the physician, who said that his patient was in such an extremely weak and exhausted state, that to move him at all, even in his own house, would most probably be fatal; but that if he were to be taken away in a violent manner, the agitation would most certainly be attended with immediate death, in which case he should feel it to be his duty to prosecute the officer for murder. This declaration had the proper effect, and the unfortunate victim was suffered to remain in the bosom of his afflicted family,

from whom he received every kind attention and all the comfort that could be administered.

It is too generally believed to admit of much doubt that the patriot was destitute of even the common necessities suited to his melancholy situation, and the unfeeling apathy of persons of high distinction in slighting an old favourite in distress, admits of no excuse. The plea of a want of means, if urged, ought to be exposed.*

As far as sympathetic solicitude could administer relief or comfort, Mr. Sheridan received every consolation from the kind attention of a numerous acquaintance and an affectionate family. But there is abundant reason to hope that his last moments were cheered by the more abundant consolation that alone springs from faith and repentance. Some days before his death, the bishop of London, who is a near relation of Mrs. Sheridan, desired Dr. Bain to ask if it would be agreeable to his patient to have prayers offered up by his bed side. When the commission was imparted to the sick, he assented with such an expression of fervent desire, that the bishop was instantly sent for, who lost no time in attending to the solemn call, and, accompanied by the physician, read several offices of devotion suited to the awful occasion. In these prayers, Mr. Sheridan appeared to join with humility and aspiration, clasping his hands, bending his head, and lifting up his eyes, significant of that penitential frame of mind which becomes every human spirit in its passage out of time into eternity. After this he seemed to possess much internal tranquillity until life ebbed gradually away, and he departed, without any apparent struggle or agony, in the arms of his affectionate consort, on Sunday, at noon, July the seventh, 1816, in the sixty-fifth year of his age.

His remains were interred in Westminster Abbey between those of his friend and patron, the immortal Garrick, and Cumberland a dramatic writer of rival fame.

A plain flat stone records the spot where his body lies, with this simple inscription:

RICHARD BRINSLEY SHERIDAN,

Born 1751,

Died 7th July, 1816.

This marble is the tribute of an attached friend,

Peter Moore.

* The income of the Prince Regent is not precisely known. He has latterly been induced, in order to appease the clamours of the people, to relinquish a fifth part of his allowance from parliament, estimated about 50,000*l.* sterling; but, by the extent of his sales from the king's lands, and an unbounded revenue arising out of fines for the renewal of leases of his majesty's farms, his aggregate receipts are greatly swollen. The protracted indisposition of the monarch favours this state of things. Added to which, farther sources of supply, by borrowing on every possible ground of credit, and incurring debt for goods furnished, on the faith of ultimately ascending the throne, with an increase of allowances, extend the means of princely munificence.

But, it is a just remark that, the more luxurious the individual, the less charitable, frequently, is his heart.

A distinguished votary of the muses could not witness the setting of such a star, without paying some tribute to its lost splendor. And, to the sympathy of political sentiment, lord Byron felt, in addition, the endearing warmth of private friendship for the deceased.

ART. VI.—*Observations on Animal Magnetism.*

(From the Edinburgh Monthly Magazine.)

MR. EDITOR—There is now before me the First Part of the first volume of a work, entitled, *Archives of Animal Magnetism*,* published in the commencement of the present year, in the German language, at Altenburg and Leipsic. This work is to be continued periodically; and the conduct of it has been undertaken by three medical professors in the respectable universities of Tübingen, Jena, and Halle, viz. Drs. Eschenmayer, Kieser, and Nasse. No other proof than this is necessary, that a system which sound philosophy had, more than thirty years ago, pronounced to be a delusion, has again been revived in Germany; and has obtained credit, not merely with the vulgar, but with the more intelligent classes of society; and has even gained the belief of some, who, from their having been elevated to the situation of teachers in the highest seminaries of learning, may be presumed to possess a certain reputation among men of science.

It was my intention, in the present communication, to have presented your readers with such extracts from this journal as might enable them to judge for themselves of the nature and spirit of those doctrines, which are said to have excited so much interest abroad, and to hold out the prospect, in their ultimate improvement, of so much mental, as well as corporeal, good to man. On farther reflection, however, I have thought it better to defer this task till another opportunity, and to occupy the present paper with a few remarks relative to the history of this singular species of magnetic agency, such as may not be unaccessible to those who have little leisure or inclination for research, in subjects so remote from the common path of useful study.

The great teacher and practical administrator of animal magnetism in modern times, was a German physician named Mesmer. This individual first distinguished himself by a dissertation on the *Influence of the Stars on the Human Body*, which he printed at Vienna, in 1766, and publicly defended as a thesis in that university. But Father Hehl, a German philosopher, having, in 1774, strongly recommended the use of the *loadstone* in the art of healing, Mesmer immediately became a convert to his doctrines, and actually carried them into practice with success. In the midst, however, of his attention to the utility of the loadstone, he was led to the adoption of a new set of principles, which he conceived to be much more general and important in their application. He accordingly laid aside the use of the loadstone, and entered on the cure of disease on this more improved system. This apostacy

* Archiv für Thierischen Magnetismus. 8vo. 1817.

involved him in a quarrel with Father Hehl, and with the celebrated Ingenhouz, by whom he had formerly been patronised; and as their credit in Vienna was extremely high, and their exertions against him indefatigable, his system almost immediately sunk into general disrepute. To parry their opposition, he appealed in 1776, to the Academy of Sciences at Berlin. Here, however, his principles were rejected "as destitute of foundation, and unworthy of the smallest attention." Undismayed by these important miscarriages, he made a progress through several towns of Germany, still practising magnetism, and publishing, from time to time, accounts of the cures he accomplished, which were as regularly followed by a denial on the part of his opponents. He returned to Vienna a second time, and made another attempt to obtain a favourable reception for his doctrines, but with no better success than formerly; so that, wholly disconcerted by these uninterrupted defeats in his native country, he left Germany, and arrived in Paris in the beginning of the year 1778. Here his prospects soon began to brighten. Having retired to Creteil with a few patients (one of them a paralytic woman,) he restored them to perfect health in a few months; and in consequence of this success, the numbers of those who applied to him for relief increased rapidly, and his cures were of the most astonishing nature. A numerous company was daily assembled at his house in Paris, where the magnetism was publicly administered; and M. Deslon, one of his pupils, is said to have cleared, during this tide of success, no less a sum than 100,000*l*. In 1779, he published a *Memoir on Animal Magnetism*, and promised a complete system upon the subject, which should make as great a revolution in philosophy as it had already done in medicine. Struck, as it is said, with the clearness and accuracy of his reasonings, the magnificence of his pretensions, and the extraordinary and unquestionable cures he performed, some of the greatest physicians and most enlightened philosophers of France became his converts. He was patronised by people of the first rank; his system became an affair of *bon ton*; and animal magnetism was warmly espoused by the fashionable world.

Nevertheless, the new doctrine was not without its opponents. Some of the ablest pens in France were employed in refutation of it; and in particular Thouret Regont, physician of the Faculty of Paris, and member of the Royal Society of Medicine, greatly distinguished himself by a work which he published, entitled, *Inquiries and Doubts respecting the Animal Magnetism*.

Mesmer, in his *Memoir* already mentioned, described the agent which he professed to have discovered, and to which he gave the appellation of *Animal Magnetism*, in the following manner:—"It is a fluid universally diffused; the vehicle of a mutual influence between the celestial bodies, the earth, and the bodies of animated beings; it is so continued as to admit of no vacuum; its subtlety does not admit of illustration; it is capable of receiving, propagating, and communicating, all the impressions that are incident to mo-

tion; it is susceptible of flux and reflux. The animal body is subject to the effects of this agent; and these effects are immediately produced by the agent insinuating itself into the substance of the nerves. We particularly discover, in the human body, qualities analagous to those of the loadstone; we distinguish in it, poles different and opposite. The action and the virtue of the animal magnetism are capable of being communicated from one body to another, animated or inanimate; they exert themselves to considerable distances, and without the least assistance from any intermediate bodies; this action is increased and reflected by mirrors; it is communicated, propagated, and augmented by sound; and the virtue itself is capable of being accumulated, concentrated, and transferred. Though the fluid be universal, all animal bodies are not equally susceptible of it; there even are some, though very few, of so opposite a nature, as by their mere presence to supersede its effects upon any other contiguous bodies. The animal magnetism is capable of curing, immediately, diseases of the nerves, and mediately, other distempers. It improves the action of medicines; it forwards and directs the salutary crises, so as to subject them totally to the government of the judgment; by means of it the physician becomes acquainted with the state of health of each individual, and decides with certainty upon the causes, the nature, and the progress of the most complicated distempers; it prevents their increase, and effects their extirpation, without at any time exposing the patient, whatever be his sex, age, or constitution, to alarming consequences. In the influence of the magnetism, nature holds out to us a sovereign instrument for securing the health and lengthening the existence of mankind."

The apparatus necessary for the administration of the magnetism, and the method in which it was employed, were the following. In the centre of a large apartment was a circular box made of oak, and about a foot or a foot and a half deep, which was called the bucket. The lid of this box was pierced with a number of holes, in which were inserted branches of iron, elbowed and moveable. The patients were arranged in ranks about this bucket, and each had his branch of iron, which, by means of the elbow, might be applied immediately to the part affected. A cord passed round their bodies, connected the one with the other. Sometimes a second means of communication was introduced, by the insertion of the thumb of each patient between the fore finger and the thumb of the patient next him. The thumb thus inserted was pressed by the person holding it. The impression received by the left hand of the patient was communicated through his right, and thus passed through the whole circle. A piano forte was placed in one corner of the apartment, and different airs were played, with various degrees of rapidity. Vocal music was sometimes added to the instrumental. The persons who superintended the process had each of them an iron rod in his hand, from ten to twelve inches in length. This rod was a conductor of the magnetism, and had the power of concentrating it at its point, and of

rendering its emanations more considerable. Sound was also a conductor of magnetism; and in order to communicate the fluid to the piano forte, nothing more was necessary than to approach to it the iron rod. The person who played upon the instrument, furnished also a portion of the fluid; and the magnetism was transmitted by the sounds to the surrounding patients. The cord which was passed round the bodies of the patients was destined, as well as the union of their fingers, to augment the effects by communication. The interior part of the bucket was so constructed as to concentrate the magnetism; and was a grand reservoir, from which the fluid was diffused through the branches of iron that were inserted in its lid. The patients then, arranged in considerable number, and in successive ranks, round the bucket, derived the magnetic virtue at once from all these conveyances:—from the branches of iron, which transmitted to them that of the bucket;—from the cord which was passed round their bodies, and the union of their fingers, which communicated to them that of their neighbours;—and from the sound of the piano forte or a musical voice, which communicated through the air. The patients were besides magnetised directly, by means of a finger or a bar of iron, guided before the face, above or behind the head, and over the surface of the parts affected, the distinction of the poles still observed. They were also acted upon by a look, and by having their attention excited. But especially they were magnetised by the application of the hands, and by the pressure of the fingers upon the hypochonders and the regions of the lower belly; an application frequently continued for a long time, sometimes for several hours.

In this situation the patients offered a spectacle extremely varied, in proportion to their different habits of body. Some of them were calm, tranquil, and unconscious to any sensation; others coughed, spat, were affected with a slight degree of pain, a partial or an universal burning and perspiration; a third class were agitated and tormented with convulsions. These convulsions were rendered extraordinary by their frequency, their violence, and their duration. As soon as one person was convulsed, others presently were affected by that symptom. Accesses of this kind sometimes lasted upwards of three hours; they were accompanied with expectorations of a thick and viscous water, brought away by the violence of the efforts. Sometimes these expectorations were accompanied with small quantities of blood; and there was among others a lad who frequently brought up blood in considerable abundance. These convulsions were characterised by precipitate and involuntary motions of all the limbs, or of the whole body; by a contraction of the throat; by sudden affections of the hypochonders and the epigastrium; by a distraction and wildness in the eyes; by shrieks, tears, hiccups, and immoderate laughter. They were either preceded or followed by a state of languor and reverie, by a species of dejection, and even drowsiness. The least unforeseen noise occasioned starting; and it was ob-

served, that the changing the key and the time in the airs played upon the piano forte, had an effect upon the patients; so that a quicker motion agitated them more, and renewed the vivacity of their convulsions. Nothing could be more astonishing than the sight of these spasms. One that had not seen them could have no idea of them; and in beholding the whole scene, the profound repose of one class of patients was not less striking than the violence with which another class was agitated.

The first part of the work to which I have alluded, by Thouret, had for its object to show, that the theory of Mesmer, instead of being a novelty in science, was an ancient system, which had been abandoned by the learned a century before. He demonstrated, in the most satisfactory manner, by precise references to the writings of Paracelsus, Van Helmont, Godenius, Bargravius, Libavius, Wirdig, Maxwel, Sir Kenelm Digby, Santanelli, Tentzel, Kircher, and Borel, that all the propositions published and avowed by Mesmer, were positively laid down by one or other of these authors. In the second part, Thouret proves, by observations and reasoning, remarkable for their acuteness and good sense, that all the effects ascribed by Mesmer to the operation of a new species of magnetism, were to be attributed solely to the influence of the imagination on the body; that they admitted of the same explanation as the cures of the two famous empirics, Greatrakes and Gassner; and that to pretend to the discovery of a curative means, which should extend to every species of disease, or, in other words, to a universal medicine, was an illusion unworthy of an enlightened age.

This work of Thouret's received, from a committee of the Royal Society of Medicine appointed to examine it, that praise to which it was so justly entitled, from the talent and the erudition it displayed; and it cannot be doubted, that its influence would alone have been sufficient to have arrested the progress of the doctrine it exposed, even if animal magnetism had not been, from its very nature, destined ultimately to share the fate of every popular delusion. Fortunately however for science, Mesmer's operations were deemed worthy of the attention of government; and on the 12th of March, 1784, a committee, consisting partly of physicians, and partly of members of the royal academy of sciences, was appointed by the king to examine thoroughly the principles of the new magnetical system. At the head of this committee was the celebrated Dr. Franklin; and the individuals united with him in the inquiry were, Majault, Le Roy, Sallin, Bailly, D'Arcet, De Bory, Guillotin, and Lavoisier. These philosophers immediately entered on the discharge of the duty which had been intrusted to them, with all the judgment and assiduity which it was natural to expect from men so eminently qualified for the task. Mesmer refused to have any communication with this committee; but M. Deslon, the most considerable of his pupils, consented to disclose to them the whole principles and practice of his master, and to assist them in all their investigations.

Accordingly, the commissioners, after having made themselves acquainted with the theory of animal magnetism, as it was professed by Mesmer, witnessed each of them repeatedly, its effects in public, when administered by Deslon; they submitted, in private, to be magnetised themselves; and they magnetised others in a variety of circumstances. The final results of their inquiry were communicated to the king, on the 11th of August, in a report which was drawn up by Dr. Franklin, and which will be read with admiration, as long as the history of the human mind affords interest to the moral philosopher or the physiologist. The animal magnetic fluid was pronounced to have no existence; and compression, imagination, and imitation, were shown to be the true causes of the effects attributed to it. "The curious and interesting inquiries of M. Thouret," say the commissioners, "have convinced the public, that the theory, the operations, and the effects of the animal magnetism proposed in the last age, were nearly the same with those revived in the present. The magnetism, then, is no more than an old falsehood. The theory, indeed, is now presented (as was necessary in a more enlightened age) with a greater degree of pomp; but it is not, on this account, the less erroneous."

This interesting report was translated into English, with an historical introduction, in 1785; and it is from this translation, which is respectably executed, that the preceding detail has been almost verbatim extracted. It is very important, however, to mention, that in addition to this memoir, which was obviously meant for the public eye, the commissioners deemed it their duty to communicate a private report to the king; in which, with a laudable solicitude for the morals of the sex, they disclosed certain circumstances, accompanying the administration of the magnetism, in the highest degree unfavourable to the purity of the female feeling and character, and which, by designing individuals, might be rendered subservient to purposes of the most criminal profligacy. This secret memoir has since been made public.

An exposure so complete, accomplished by men whose integrity and talents were acknowledged over the whole of Europe, speedily produced the effects that were to have been expected from it. In a few months, Mesmer and his animal magnetism were forgotten.

Since the overthrow of this system, the most remarkable popular delusion which has prevailed, is the belief in the influence of the *metallic tractors* of Perkins. With how much talent this deception was exposed by Dr. Haygarth and his scientific friends, is generally known. To this most able and intelligent physician, physiology is indebted for a series of experiments, displaying in a manner still more striking perhaps than had hitherto been done, the influence of powerful emotions on the corporeal frame. G.

Edinburgh, 1st Sept.

ART. VII.—*Of the Dissemination of Plants. From the French of M. C. F. Brisseau Mirbel.*

[From the Journal of Science and the Arts.]

BY dissemination, we mean to express the spontaneous dispersion of the seeds of the vegetable creation; an event, which, while it brings to a close the yearly round of the vegetative functions of the individual, becomes the means of giving perpetuity to its race. When completed, the organs of the plant in which existence surpasses one year, tend visibly to a state of inactivity, and in that where this concludes with the year, to decay; being there in fact the first stage of dissolution. When we see the fruit separate from the parent-stem, its seams begin to open, the ligatures of the seed detach themselves from the placenta, we are not to place these appearances to the account of the energy of the vital principle; but on the contrary, to view them as the certain indications of its having ceased in that portion of the vegetable where they occur. Fruit undergoes the destiny of the leaf in autumn, and is quickly reduced within the control of those laws which govern all inorganic matter. If, of a succulent pulpy nature, the fluids ferment and turn sour, the texture collapses and the whole is dissolved by putrefaction; if of a ligneous dry consistence it follows precisely the course of the wood or the leaf in which vegetation has ceased.

In animals the affection they bear their offspring, the instinct they are endued with for its protection and succour, their strength, their courage, their address, are all so many means of insuring the perpetuity of their races; but to vegetables, sensation and the sources of spontaneous movement have been denied, and yet even here we see countless races appear before us on each revolving year, such as they appeared in the first days of their formation. Let us turn our attention to the causes of this wonderful stability in the races of vegetables.

The most efficient is without doubt the prodigious fecundity they are endowed with. Sir Kenelm Digby tells us, that the fathers of the congregation of La Doctrine Chrétienne at Paris, had in their possession about the year 1660, a single barley-plant with 45 straws producing in the aggregate 18,000 corns of barley. Ray counted 32,000 seeds in the heads of one plant of poppy, and 360,000 on one tobacco-plant. Dodart recounts of an elm, that it produced 529,000 seeds. Yet none of these vegetables are among those of the foremost ranks in the degrees of fecundity. The number of seeds borne by a plant of Begonia, or Vanilla, but above all by a fern, confounds calculation.

Although many kinds, like those of angelica, fraxinella, and coffee, quickly spoil, and require to be sown almost as soon as ripe; yet the far greater proportion preserve the germinating faculty for years and even for ages. We have ourselves recently witnessed the growth of the seeds of a kind of kidney-bean which had been taken from the herbarium of Tournefort. Home sowed with success barley that had been gathered 140 years. Wheat has been discovered in subterraneous hoards, which had been lost

and forgotton for time out of mind, in as perfect a state as the day it was reaped.

Insects, birds, and four-footed animals are the great destroyers of seeds; yet their abundance is such as prevails over the voracity of their consumers; while some are defended from all risk by the hardness of their coverings, or the thorns which arm them, or the acrid and corrosive juices with which they are impregnated.

Spontaneous dissemination favourable to the development of individual plants by preventing the too great accumulation of seed within a too narrow compass, is carried on in various ways. In the balsam, catchfly, fraxinella, sand-box-tree, &c. the valves of the seed-vessel open with a spring that projects the contents to a distance from the parent-plant. The gourd of the spirting cucumber, by a contraction which takes place at the moment of its fall, darts out the seed along with a corrosive fluid by a vent formed as it quits the stalk. The seed of the wood-sorrel is contained in an extensile arillus or separate pouch, which dilates as the seed-vessel grows, but at last the power of extension ceases in the pouch, when it bursts and shoots out the seeds by an elastic effort. Plants of a lower degree in the scale of organization, such as the mushrooms, have their peculiar means of disseminating the particles destined for their reproduction. For instance, some of the species of *Peziza* impart a vibratory motion to the cap or cover which bears their seed when that is ripe. Puff-balls, also of the mushroom-tribe, burst at the top like the crater of a volcano, and the seed is in such quantity and so fine that when it escapes it has the appearance of a volume of smoke. The capsules of ferns likewise open with a spring, an effect of their contraction in drying up when ripe. A like cause gives motion to the cilia or inner fringe which surrounds the urns or seed-vessels of mosses. But although such partial phenomena, may attract our curiosity, they act only a very subordinate part in the grand total of dissemination. There are other more general and powerful causes to be mentioned in this place.

Many seeds are as fine and volatile as the dust of the anther; the winds carry these away to scatter them on the plain, the mountain, the building, and in the very depth of the cavern. No place seems closed against the intrusion of the impalpable seeds of the various sorts of Moulds (*Mucor*es.)

Heavier seeds and fruits are furnished with wings, which support them in the air, and serve to waft them through great distances. The seed-vessel of the elm is surrounded by a circular membranous wing; that of the ash is terminated by one that is oblong. The keys or seed-vessel of the maple has two large side-wings. The seeds of the fir, the cedar, and the larch are furnished with a wing of great fineness. The peduncle of the capsule of the lime-tree adheres to a kind of broad bracte which plays the part of wings.

The seeds of syngenesious plants are furnished with a feathery crown or aigrette, and look like small shuttle-cocks. The sepa-

rate threads that compose this aigrette distending as they dry, serve as levers to lift the seed from the involucre that holds it, and when out, as a parachute to prevent its coming to the ground, and to buoy it in the air.

Linnæus suspects that the *ERIGERON canadense* came through the air from America to Europe, not at all an impossible thing. When once that syngenesious plant has found its way into any quarter, it is sure to disperse and sow itself round the whole neighbourhood.

The funiculus (a cord which attaches the seed to its receptacle) of the dogbane, swallowwort, periploca, &c. the calyx of several of the valerians and scabiouses form of themselves elegant aigrettes resembling those of the seed of the syngenesious plants.

Seeds are often carried by eddies of winds far from the spot on which they grew. Whirlwinds have been known to scatter over the southern coast of Spain those that had ripened on the northern coast of Africa.

Some fruits are closed hermetically and so constructed as to swim on the water. These are carried to every distance by torrents and rivers, as well as the sea itself. Cocoa-nuts, cashew nuts, and the pods of the *MIMOSA scandens* sometimes of the length of two yards, with many other fruits of the tropical regions, are cast upon the shores of Norway, in a state to vegetate, did the climate permit.

Regular currents transport the large double cocoa-nut of the Sechelles, to the coast of Malabar at the distance of 400 leagues from whence it was produced. Fruits brought by the sea have sometimes discovered to uncivilized nations the existence of those islands which lay to the windward of their country. By such tokens Columbus in the search of the American continent was apprised that he was not far distant from the land of which he had prognosticated the existence.

Linnæus remarks that animals co-operate with great effect in the dissemination of seed.

The squirrel and cross-bill, are both very fond of the seed of the fir; to open the scales of the cones they strike them against stones, and thus set free and disperse the seed.

Crows, rats, marmots, dormice convey away seeds to stock their hoards in out-of-the-way places. These form their winter-stores, but are often lost or forgotten, while their contents come up in the spring.

Birds swallow the berries, of which they digest only the pulp, but void the stones entire and ready to germinate. It is thus that the thrush and other birds deposit the seed of misletoe on the trees where it is found; and indeed destitute as this is of wings or aigrettes, it could not be disseminated in any other way, for it will not grow on the ground.

The Poke of Virginia (*PHYTOLACCA decandra*,) which was introduced by the monks of Corbonnieux into the neighbourhood of Bordeaux, for the sake of colouring the wine, has been since dis-

seminated by the birds throughout the southern departments of France, and in the deepest valleys of the Pyrenees.

The Dutch, with the view of monopolizing the trade of nutmegs, extirpated the trees on those islands which they could not watch so narrowly as the rest; but in a short time these very islands were re-stocked with nutmeg-trees by the birds; as if nature refused to admit of such encroachment on her rights.

Granivorous quadrupeds disseminate the seed they do not digest. It is known to every one that horses infect the meadows with new weeds.

The fruit of the prickly-seeded scorpion-grass, of cleavers or goose-grass, of the wood-sanicle are all provided with small hooks by which they lay hold of the fleeces of the flock, and accompany its migrations.

There are particular plants, such as the pellitory-of-the-wall, the nettle, and the sorrell, that may be said to seek the society of man, and actually to haunt his footsteps. They spring up along the wall of the village, and even in the streets of the city, they follow the shepherd, and climb the loftiest mountain with him. When young I accompanied M. Ramond in his excursions in the Pyrenees, where that learned naturalist more than once pointed out to me these deserters from the plains below; they grew on the remains of ruined hovels, where they kept their station in defiance of the severity of the winters, and remained as memorials to attest the former presence of man and his flocks.

Distances, chains of mountains, rivers, the sea itself are but unavailing barriers to the migration of seed. Climate alone can set bounds to the dispersion of the vegetable races; that only draws the line which these cannot transgress. In process of time, it is probable that most of the plants which grow within the same parallel of latitude will be common to all the countries comprized in the entire zone of it; an event which would be one of the great blessings resulting from the industry and persevering intercourse of civilized nations. But no human power will ever force the vegetable of the tropics to endure the climate of the poles, nor *vice versâ*. Here nature is too strong for man.

Species cannot spontaneously spread themselves from one pole to the other, the intermediate differences of temperature preventing such progress; but we may assist in transporting them, as we have done successfully in various instances. We have already transplanted the eucalypti, the metrosidera, the mimosas, the casuarinæ and other plants of Terra Australis into our own soil; while the gardens of Botany-bay are stocked with the fruit-trees of Europe.

The dissemination of seed completes the round of vegetation. The shrub and the tree are bared of their foliage; the herb is dried up and returns to the earth from which it came. That earth appears to us as if stripped for ever of her gay attire, yet countless germs wait but the stated season to readorn her with verdure and bloom. Such is the prodigal fertility of nature, that a sur-

face of a thousand times the extent of that of our whole globe, would not suffice for the seed harvest of a single year, provided the whole was suffered to reappear; but the destruction of seed is endless, and only a small portion escapes to rise again. In no way in our view are the power of nature and the immutability of its laws more strikingly displayed, than in the successive resurrections of the types of by-gone generations.

Of the Death of Plants, from the French of the preceding Author.

PLANTS, like animals, unless destroyed by disease or casualties, are doomed to die of old age.

In many of the *mucos* (plants which constitute mouldiness) *byssi*, and mushrooms, the verge of life does not extend beyond a few days or even hours.

The herbaceous plants we call annuals die of old age considerably within the term of a year. In our climates their death takes place on the approach of winter. But we are not on that account to conclude that cold is the primary cause of the event; a milder climate would not have protracted their existence. Plants of this nature which grow under the line itself are scarcely longer lived than those which grow in the regions bordering on the poles. In both situations they perish when the propagation of the species has been secured by the ripening of the seed.

In the herbaceous plants we call biennials, only leaves make their appearance in the first year. These generally die away when winter comes; in the spring a new foliage, the forerunner of the flower-stem, is evolved. The blossom soon appears, this is followed by seed, after which the biennial dies in the same way as the annual.

In the herbaceous plants called perennials, the parts exposed to the action of the light and air perish every year after they have seeded; but the root survives in the ground, new stems are thrown up in the following spring, and blossom and seed is again produced.

In the generality of woody plants, death does not supervene until the process of fructification has been repeated for a greater or less number of years. There are trees however belonging to the monocotyledonous class, as the sago-tree (*sagus farinifera*), the umbrella-tree (*corypha umbraculifera*) with immense fan-formed leaves of 8 or 10 yards in length, which only bear fruit once, and then die; but on the other hand, in the dicotyledonous class there are enormous trees, whose existence seems to date from before the records of history, and which, in spite of their antiquity, are loaded in each returning year with blossom and seed.

If we were to view the perennial and the woody plants as simple individuals, as such we should be naturally induced to conclude, that unless destroyed by disease or casualties they were free from the liability to death from old age; but a due conside-

ration leads us to distinguish in every perennial and woody plant the new part which actually lives and grows, from the old which has ceased to grow and is dead.

I will state this in a broader way. Plants of this nature have two modes of propagating their races; one by seeds, the other by a continuous evolution of like parts.

In the first case, the seed presents us with an embryo-plant, a new and different individual, independent and unconnected with that from which it derived its existence; in the second case we are presented with a series of individuals, which issue from the surface the one of the other in an uninterrupted sequence, and in some instances continue permanently united. But whether individuals of this description are produced by seed or continuous evolution, it is certain that they escape, in neither case, the influence of time. While the succession of individuals or what we may call the race, produced in either of the ways, is on the other hand as clearly beyond the reach of age and will endure until destroyed by some extraneous cause.

We will endeavour to show how those general laws apply.

All the parts of the young herbaceous annual are susceptible of enlargement; the cells of the tubes, at first very small, are soon after extended in every way; in process of time their membranous walls, fortified by the absorption of nutritious juices, grow thicker, and lose by degrees their original pliancy. The membranes once hardened, excitement ceases to be produced, and the vital functions are at an end; nourishment is no longer drawn, growth is at a stand, and the plant unable to resist the ceaseless attacks of the external agents employed by nature for its destruction, decays in a short time.

Similar causes induce similar results in the stems of the herbaceous perennials; but there the root is regenerated by a succession of continuous evolutions.

By renewals of the same nature the life of shrubs and trees proceeds. In them the liber or inner bark represents the herbaceous plant, and has like that only a short period of vegetative existence. For when vegetation revives in the woody plant on the return of spring; it is because a new liber endowed with all the properties of a young herbaceous plant, has replaced under the cortex or rind the liber of the preceding year, which has hardened and become wood.

The yews of Surrey, which are supposed to have stood from the time of Julius Cæsar, and are now 2 yards in diameter; the cedars on Mount Lebanon, 9 yards in girth, from the measurement of the learned Labillardière; the fig tree of Malabar, according to Rumphius, usually from 16 to 17 yards round; the stupendous chestnuts on Mount Ætna, one of which, Howell tells us, measured 17 yards in circumference; the ceibas of the eastern coast of Africa, of such bulk and height that a single stick is capable of being transformed into a pirogua or sailing vessel of 18 or 20 yards from stem to stern and of 3 or 4 in the waist; the baobab of Sene-

gal of 10 or 12 yards in girth, and, according to the computation of Adanson, 5 or 6000 years old; all of these, giants as they are, vegetate, as does the smallest bush, solely by the thin herbaceous layer of the liber annually produced at the inner surface of their bark. The concentric layers of preceding libers constitute the mass of the wood, a lifeless skeleton, serving solely to support the new formed parts, and to conduct to them the juices by which they are fed; nor is it even necessary for these functions that this should be in an entire state. Willows and chestnuts when quite hollow at the heart, still continue to grow with vigour; but in their soundest state, strip them of their bark, and they quickly perish.

Thus reflection teaches us that the long life of the greater part of trees, and the immortality which at first sight appears to have been imparted to others as well as to the whole of the herbaceous perennial plants, form in reality no exception to the general law which destines every organized individual to perish in determined course; since we see that the old parts of the roots of the herbaceous perennial continue constantly to die away under ground, and are succeeded by new ones, and that the concentric layers which constitute the wood or heart of the trunks of trees, are no other than the accumulated remains of by-gone generations, in which vegetation and life are entirely extinct.

This appears to us the true view of the nature of the life and death of such beings as are constantly regenerated by the successive evolutions of like continuous parts.

And we may observe that the liber which is formed on the stem of a tree of centuries old, if the tree has met with no accidental injury to affect its health, enjoys the vegetative power in as full force as the liber which is formed on that of the sapling, and that a sound well grown scion from the aged but healthy tree, affords as good a cutting for propagation as that taken from the young one, so that the race might be perpetuated by cuttings alone, without the assistance of seeds. From this we are entitled to conclude, that according to the course of nature, the progress of regeneration by continuous evolution would never be arrested, if the overgrown size of the branches and stem, the hardening of the wood, and the obstructions of the channels which permeate it, did not impede the circulation of the sap, and consequently its access to the liber.

In fine, what we call death by old age, in a tree, to speak correctly, is the extinction of that portion of a race which has been carried on by continuous evolution; the inevitable result of an incidental death in the liber occasioned by the privation of nourishment.

The life of trees has been commonly divided into three stages; infancy, maturity, and old age. In the first the tree increases in strength from one day to the other; in the second it maintains itself without sensible gain or loss; in the third it declines. These stages vary in every species according to soil, climate, aspect, and

the nature of the individual plant. The common oak usually lasts from 6 to 900 years, and the stages of its existence are of about 2 or 300 years each. It has been observed to live longer in a dry than in a wet soil. The same may be said of the chestnut.

Every species in order that it may attain its due growth, requires a certain temperature to be found within limits of a greater or less extent.

The common oak, the fir, the birch, &c. thrive most towards the north; the ash, the olive tree, &c. in the warmest parts of Europe; the baobab, the ceiba, and the palm, flourish and become robust nowhere but between the tropics.

According to Sir Humphry Davy, the respective quantities of carbon furnished by different woods afford a tolerably exact scale wherewith to measure their longevities. Those in which carbonic and earthy substances abound, are the most lasting; and those in which the largest proportion of gaseous elements is found, are the least so. This rule may hold good in regard to our indigenous trees; but I doubt whether the baobab, the ceiba, and many other tropical trees, the wood of which is of a loose and soft texture, will afford from masses of equal size, the same proportion of carbon as our oaks, chestnuts, or elms, although they grow to a much greater age.

Sir Humphry Davy is also of an opinion that trees of the same species grow to a more advanced period in the north than in the south, as cold guards against fermentation and dissolution of parts; but every tree lives the longest when it is in that climate which is the best adapted to its nature. Sir Humphry's opinion would be unquestionable if the vegetable species in view were organized so as to be adapted to grow in all the climates of the globe, and it was then found that their duration was constantly greater towards the poles than towards the line. I do not doubt that more oaks of a great age, and more firs also, are found in the north than in the south of Europe; but it is on the other hand beyond a doubt that the ashes of Calabria and Sicily are longer lived than those of Prussia and Great Britain. These are phenomena which depend upon the particular nature of species, and of this subject we know nothing.

In proportion as the tree increases in size the vessels of its ligneous layers become obstructed, and the sap circulates with less freedom; hence absorption and secretion decrease after youth, in proportion as the bulk of the tree is enlarged. The liber is less vigorous; the buds and roots become fewer and feebler; the branches wither; the stem decays at the head; water settles in the injured parts; the wood moulders away. Ere long, the new liber, the annual herbaceous part of woody vegetables, loses the power of completing its regeneration, new parts are no longer evolved, and the tree perishes.

The tree after death is overrun by *puccinia*, *mucors*, *sphæria*, and other cryptogamous plants; it attracts and imbibes moisture, no longer as formerly by the absorbing power of its organs, but by the hygrometrical property it derives from its porous conformation,

and the chymical action of the elements which compose it; the oxygen of the atmosphere consumes a part of its substance; some water is generated, carbonic acid gas is disengaged; and the rest is resolved into vegetable mould (*humus*), a fat brown powdery substance, eminently fertile, in which we find in different proportions the same elements as those of which vegetables are composed; and which have the faculty of decomposing air and combining with its origin.

It is thus the career of plants is terminated in the order of things. The earth they adorned in the period of vegetation, is fertilized by their remains; germs impregnated with new life have already been confided to its bosom, ready to supply the by-gone generations, and through the death of individuals an unfading youth is secured to the race.

ART. VII. *Thoughts on the Amelioration of the Condition of the Slave Population of the West-Indies, together with the ultimate abolition of slavery and the means of civilizing Africa; from an unpublished Manuscript, by J. A. Mossel, Esq. late of the University of Edinburgh.*

ESSAY I.

THE arrival of a general peace had, among a variety of benefits which are its usual concomitants, the good effect of awakening the attention of nations to the necessity of abolishing Christian slavery in those piratical states where it was found to exist. In this enlightened age, when the principles of general liberty are so widely diffused and appreciated, it was not to be tolerated that any power should assume to itself the right of detaining captives in a state of bondage, to labour solely for the individual interests of their oppressors. The long continuance of European warfare delayed the necessary work of retribution until the jarring *views* of conflicting parties should be harmonized, when, simultaneously as it were, the reproach of having for a time submitted to the indignity and injustice of christian slavery, was sought to be effaced by the several maritime powers. After due chastisement bestowed upon the perpetrators of so flagrant an enormity, the supreme head of the Barbary states was compelled to engage for himself, his heirs and successors for ever, to abolish that slavery in his dominions. But Africa, injured, desolated Africa, is unable to avenge the wrongs she sustains from European aggression. Debased by the policy of moral degradation too successfully exerted by crafty adversaries*—robbed by their intrigues of her unhappy victims she is impotent in exertion and ineffectual in complaint. To the tears and remonstrances of the unfriended African, country and friends are alike strangers; they are deaf to his

* This is evident from the constant intrigues among the petty princes and chiefs of tribes practised by the slave dealers, who thus succeed in promoting discord and contention between the natives whom they encourage to entrap and sell each other. Prisoners in war of both parties are frequently sold to the same dealer.

voice and inaccessible to her intreaties. Without the power of vindicating herself, Africa must look for relief to those friends to humanity who have associated themselves for the purpose of mitigating her sorrows, to "labour together for good" in comforting and civilizing a much injured people lost in the profoundest ignorance and barbarism.* To them the appeal most appropriately belongs, who, actuated by the true charity of the Gospel, have proclaimed aloud to the world the moral obligation on all mankind to suppress that odious and blood-stained practice permitted for a time to disgrace those who "call themselves christians."

A parity of reasoning to that which influenced civilized nations in reducing inadmissible pretensions to tyrannize over unoffending captives, appears to apply, with perfect analogy, to the case of the African slave trade, already denounced and abolished by the most enlightened powers. Forcibly to apply the labour of our fellow-creatures to our individual purposes without emolument or requital to the persons so labouring, is utterly irreconcilable with the primary dictates of humanity and natural justice—subversive of every moral principle, and calculated in its effect to loosen the attachment of man to man. The consequences of impairing or weakening that attachment, whether it spring from interested or from moral motives, or both, are more serious and extensive in their influence than persons accustomed to European politics alone are qualified to conceive. The slave population in some of the British West India islands is so considerable and preponderating over the number of whites, so abject in condition, and oppressed by wrongs, that it would not be matter of surprise if attempts at rebellion should be repeated, and tragical scenes of wide calamity and fixed root, as at Barbadoes, again occur. The sanguinary effects of that most deplorable event—the destruction of property and loss to individuals, are far exceeded as to their remote consequences, by the mischief resulting from the necessity of severe and numerous punishments, and no less probably by the secret workings of the deep though silent curses of every breast that mourns a comrade slain. How far the effect of these occurrences is likely to survive in the memory of the negro, and what turn of mind they may serve to produce, can best be conceived by those who understand his character by experience. May the day of vengeance be far distant, and the arm of irritated slavery, seeking to establish the sacred rights of liberty and independence, be stayed by the adoption of a milder and a wiser policy!

To Britain, the possessor of a more ample share of colonies than has fallen to the lot of any other power, it is natural to look, after the decisive part she has taken in this great question, for the happy example of an improved policy, tending at once to remove the causes of discontent, and to bind the labourer to his employer. We are taught to believe that there is, on the part of the British

* We allude to the African Institution of London, founded in 1806, by the joint exertions of Wilberforce, Clarkson, Granville Sharp and other distinguished philanthropists.

cabinet, a disposition to place the colonies on the most favoured footing, and on behalf of that most useful and laborious class who constitute so considerable a proportion of the inhabitants, it is but equitable to claim some title to consideration and clemency. It is not too much to hope, indeed, that what Africa cannot of itself bring about, the government of England will voluntarily yield—that when it shall be seen, the preservation of the West India islands in their allegiance to the parent state depends entirely upon a more judicious line of conduct in the planters—that the civilization of Africa, together with a beneficial extended commerce with the interior of that vast continent is the happy result of such a combination of measures as seems to present itself with every feasibility—the British government will hesitate no longer to interpose, and, rendering to Africans natural justice, identify their interests with the cause of their employers and the cause of the government.

Influenced by a sincere desire to promote the welfare of mankind, to advance the interests of my country, and to efface that stigma on the national character, too long suffered to exist, I am induced to suggest the propriety as well as policy of legislating in favour of the slave population in the British West India islands. To establish the practicability of my plans, and to serve as some guide in the discussions to which a consideration of this weighty question must necessarily lead, I have been careful to collect all the information it was possible to obtain during a recent visit to the West Indies, and in the inferences drawn, my judgment, not borne away, as some may imagine, by a blind humanity, has been exercised in that sober induction which facts warrant and reasoning prescribes. Investigation, fairly and impartially conducted, will decide on the tenor of my propositions, which, it is believed, are secure in their tendency, and practicable in operation.

It is not confined to the student of moral philosophy to know, that where self-interest excites, industry will be proportioned to the ratio of the stimulus. Persons in the West Indies must frequently have observed the quantity of labor bestowed upon a soil to have been greatly accelerated by a promise to the slaves of money or of drink.* Much of the land about Demarara and Berbice was cleared with astonishing rapidity by these successful appeals to human nature, and it is not doubted that cultivation might be extended, to the great advantage of capitalists, in some very fertile parts of South America adjacent to those provinces, were the introduction of hired labourers encouraged, according to the principles proposed to be unfolded in the following treatise.—It is unquestionable that the efforts of the slaves are much relaxed when they reflect, that they labour without emolument, and sow what they are not permitted to reap. This relaxation has been frequent-

* The latter species of reward ought most decidedly to be discouraged. It is apt to engender numberless evils, and opposes, instead of advancing, that great moral principle which cannot be too carefully promoted, viz. the desire of man to better his condition.

ly ascribed to natural indolence, the heat of climate, and such slight predisposing causes, though rarely to the one most probable and important, because, this it is the policy of the planter to conceal, viz. the want of a sufficient inducement to exertion.

That "every man is worthy of his hire" is an axiom as equitable as it is natural. But, hitherto the devoted negro has been considered, most unjustly and indefensibly, an exception to this general rule. To hire, rather than purchase, would unquestionably have had the effect of propelling cultivation forward in a much greater degree than as estates are now administered, under the existing system. Few can afford to embark in the concern of an extensive plantation, when the price affixed to each slave in most instances exceeds 100*l.* sterling or 500 dollars per head, whereas by engaging labourers, who would, as hereafter shown, if fairly paid, always resort in considerable numbers to the West India islands, more estates might be cultivated, with scarcely any advance of capital, and the general prosperity of those islands would, of course, be materially advanced. It might be necessary in the first instance, to fix the price of labour,* which should be regulated according to local circumstances, on mature investigation; thus would the labourers, or, as they are termed in St. Domingo, cultivators, be enabled to procure for themselves a few trifling comforts, and it is scarcely necessary to remark how effectually the payment of wages in return for labour would connect the cultivator with his employer, by the strongest of all ties, self-interest.

After the expulsion of the French from St. Domingo, on the establishment of a regular government by the blacks, it was in contemplation to adopt this principle in fixing the price of labour. Not that it is to be received as a problem of any merit in political economy, to measure the rate of wages, permanently, by the will of the legislature. Attempts to interfere in such cases are usually productive of dissatisfaction, and do harm. Labour should at all times be left to find its own level and to answer the demand, except perhaps on the first occurrence of a great change in the order and constitution of society, when interests are unsettled, forms reversed, and clashing doubts in need of being composed. A bit per day† would probably have been considered ample by the planters under the ancient *Regime*, but to reconcile opposition it was determined to make trial of an appropriation of one-fourth part of the gross produce to the cultivator, a system that has been found by experience calculated to give general satisfaction, in the circumstances of that country, and is now embodied into a fixed law. On a certain day, after crop time, the aggregate produce is weighed and portioned off, the buyers who go round the country,

* In the state of Delaware, with which only I profess any acquaintance, blacks and coloured men, who mostly perform all agricultural labour, receive from six to eight dollars per month, beside their board. Carpenters and mechanics have been known to make from twelve to twenty dollars per month.

† A bit is an aliquot part of a Spanish Dollar. In St. Domingo eleven bits compose a dollar; in different islands the division and currency vary.

being ready to convert it into cash. The inconveniences attendant on an annual settlement are remedied by occasional advances on the part of the proprietors, so as to enable the cultivators on the estate to procure necessities, while the accumulation in reserve is of course beneficial to the interests of the prudent. A strict police and the exertions of managers prevent instances of intoxication from being frequent—this evil, it might be thought, would be a consequence of wealth suddenly acquired, especially in the case of ignorant persons; but, as in military affairs, discipline is essential to the well being of an army, so is a strict police and punishment when deserved, essentially necessary in the administration of an estate, and no where is such police more efficient than in that island.

In the case of uncleared lands and new settlements, some useful hints may possibly be derived from the practice in St. Domingo, where the blacks must be supposed to understand full well the nature of the equivalent that is suited to the wants of their *quondam* fellow-slaves. A man of industry with some little credit, and without capital, might, in this view, feel himself competent to undertake the cultivation of an estate. In South America, in parts adjacent to French and Dutch Guyana, even on the banks of the rivers Corantain and Essequibo, under every protection, fertile districts in a state of nature might be cleared and planted at an expense comparatively trifling and free from those exorbitant demands which the settler would have to encounter in many of the islands. By agreeing with his labourers to assign to them one fourth part of the whole amount of produce, he would attract an ample number of hands necessary to enable him to prosecute his design, whereas to purchase a sufficient quantity of slaves might be wholly out his power.

It has been ascertained that the apportioning of task work, with suitable inducements, has been attended with the best effects in stimulating the energies of the negro; in such cases of course the remuneration is proportioned to the quantity of labour performed. The policy of this measure will be at once apparent when we consider the disposition of man to adapt his labour to the reward, regulating the former by the frequency of the latter.

One great bar to improvement in the West Indies is to be found in the existing practice of valuing estates according to the number of negroes attached to them; the consequence is few individuals unless some of desperate fortunes, will be found to embark in the purchase of an estate in most of the British West India possessions, because the first outlay exceeds in amount what any prudent man would think proper to hazard in such a speculation, attended with various risks. The position is not altered by the circumstance of that outlay being commuted for personal bonds, guarded by mortgage deeds of the estate and power, with warrant, of attorney. These are the refuges of the venturesome planter, not the voluntary covenants of the prudent. By separating the land from the negroes, it is probable many respectable persons might be induced to give

a higher price for the land alone than when coupled with the sale of those unfortunate beings, some of whom, skilled as artisans or mechanics, have, since the abolition of the traffic by sea, been sold for upwards of eight hundred dollars each. The more general and politic introduction of whites, particularly in housework, and many offices less exposed than the labour of the field, might be one, amongst other desirable attributes of a system which, when fully developed, appears to promise a happy termination to the angry discussions that have so long divided mankind on the slave question. From the colonial legislatures, however, it is hopeless to expect any regulations of internal economy such as those alluded to. Composed of the leading planters,* their interests, they maintain, are diametrically opposed to concessions of whatever nature, until they shall be roused to a sense of their danger and convinced of their errors. To the mother country we must look for the origin and accomplishment of such measures as may be ascertained to benefit a most valuable body, by whom all cultivation is performed, and nearly all trades and callings exercised—attended with as light a sacrifice as possible on the part of those who hitherto have monopolized all consideration and been permitted exclusively to reap the benefits of the prevailing system.

The substitute proposed in order to supply the place of slaves in new settlements, and to replenish the lands required in the old, is to be found in the disposition of the *Kroomen*, (a hardy race of people in Africa who come down from the interior to work at Sierra Leone) voluntarily to emigrate in search of employment and in the hope of gain. The reports of the London African institution, founded on the information of gentlemen long resident on the western coast of Africa, represent these people as a most laborious and indefatigable class of persons, performing all the severer toils about the different forts and settlements, and contented with a very moderate reward. They have been known frequently to row fifteen miles out to sea and return perfectly satisfied if they earn a leaf of tobacco by rendering any service to vessels on the coast. No reasonable doubt can exist that, were a number of these *Kroomen* hired in the first instance by contract, for five or seven years, at a stipulated rate, the West India islands would soon be resorted to, under due restrictions, by their countrymen in numbers adequate to the demand; nor is it less likely that they would be inclined to quit their native shores than the Malays, the Hindoos and the Chinese, who, under the denomination of *Lascars*, freely engage themselves to the commanders of East India shipping to navigate vessels on an European voyage. We have experience of the fact of these *Kroomen* removing 800 and 1000 miles from the interior down to the coast in search of hire and its reward. Their fidelity and competence to hard labour are abundantly testified. Experiment only is necessary to ascertain the practicability of inducing them freely and of their own accord to enter

* Governor Elliot's letter.

into voluntary engagements to serve for a limited period in the West Indies. As some proof of this project being far from visionary, may be adduced also the fact of no less than eight British West India regiments, consisting wholly of black troops, having been raised and embodied in Africa to serve in the West India islands. During a period coeval with the breaking out of the war between England and France up to the present day, these regiments, so remarkable for their good conduct on all occasions, have been recruited from Africa under every circumstance of opposition from the slave dealers on the one hand, and watchful scrutiny of the abolitionists of the slave trade on the other.

It might be curious to inquire with what feelings the slave on a plantation, who cannot be said to be a human being without thought, regards the condition of the more fortunate negro soldier; in so doing we cannot omit to arrive at some degree of approximation between the relative situation and claims of a body of slaves contrasted with those of a battalion of free men. The soldier is free, inasmuch as a price has not been set upon his head, but restraints—sometimes severity, fatigue, privations—he is obliged patiently to endure. Implicit obedience to the will of a superior officer is his first duty—neglect of it is attended with punishment. So far the soldier is a slave: but then he earns the wages of his calling, and honour is supposed to constitute a portion of his reward.* Not so with the slave, he knows no reward, his labour goes unrequited—his body the property of a purchaser, but with a soul equally acceptable to God. How long shall such palpable injustice be permitted to endure? What exception to the general title to remuneration enjoyed by each labouring individual in civilized society shall be pleaded in bar of extension to the unoffending African? At a time when the abolition of the trade in slaves is professed to be enforced, how long shall the price of man continue to be estimated, buyers still be found, and sellers ever ready, even under the sanction of courts, to legalize their bargains? If such a system is to be upheld—if the rights of man are thus to be quibbled away by sophistical evasion, then indeed there remains no hope for suffering humanity, and it is an abolition only in name.

But, the planter may urge the tenure of his property, the value of his freehold, and the prescriptive nature of his rights. Let it be so. The slave has also his rights, suspended but not forfeited, and to arbitrate between the two is the difficulty. It is impossible in the first place to forego the principle of labour entitling to reward. To wave it, would be to consign power and right to the strongest—toil without redress to the weaker—enjoining to the latter unqualified submission to whatsoever the other might impose. To consent to the abandonment of all those moral ties on which the frame of human society is founded, would, in these our

* See Adam Smith's *Wealth of Nations*, on the subject of the "profit of professions."

reasonings *a priori*, go to favour one class of mankind at the expense of the other; depressing the slave to the level of the brutes, and erecting the proprietor into a lord of the universe, even over his own kind. To the planter it may be urged that, to concede somewhat in order to insure the preservation and tranquillity of the whole, is the part of wisdom. He must be lost indeed to all sense of reason if he ventures to deny those precepts of natural and revealed religion which prescribe duties to all sorts and conditions of men, and teach that "charity covereth a multitude of sins." But it will hereafter appear on what his interest in this point consists. As to the slave, it must be seen that a *gradual* emancipation is most desirable even for his welfare. He is the subject of real property, the perverted object of purchase and sale—his services have been bought for a valuable consideration. In order to conciliate the concurrence of the planter thus materially implicated, he can only expect by industrious perseverance, and the accumulations of a strict frugality, to aspire in time to the purchase of his freedom by degrees, so soon as a regular system of wages is introduced in the islands. A legislative enactment on this subject would do more real honour to its framers than any measure perhaps, connected with the slave trade, since the memorable day of its abolition. But let us see in how far the planter, the West Indian interests, so predominant in the British parliament, and we may add the government itself, are severally concerned in the adoption of a more enlarged and beneficent scheme of policy. Revolutions would affect all; and though we may pronounce on the inefficacy of such partial attempts at insurrection as in Barbadoes, yet when the proportion of slaves to whites is considered, being in the island of St. Kitts alone as thirty to one, the mischiefs even attendant on those attempts are not to be laid out of calculation. The insurrection of the negroes in St. Vincent and Grenada about the year 1797, when all the estates were nearly destroyed, will long be remembered, and ought to furnish a useful lesson at the present day, when the flame of discontent appears smothered only for awhile, to burst out anew with additional horrors. But a higher motive exists to invoke impartial attention to this momentous inquiry. The history of mankind forbids us to rely upon the uninterrupted duration of a state of peace. A few years may materially vary the pacific views of different powers. In such a contingency, will it be forgotten that, during the hostilities with America, a British naval force under admiral Cockburn giving freedom to the slaves on the plantations of the Chesapeake,* received on board and transported to Nova-Scotia, a considerable body of the fugitives? Has France yet ceased to impute her reverses in St. Domingo, partly to the defeats that led to the capture of Cape St. Nicholas Mole and, partly, the ascendancy of the blacks to the instrumentality of the British arms? The evident policy of England in neutralizing that important colony may be too successfully imitated in cases where possession may not be convenient. In a state of feeling like the present on the part of the slaves, with the seeds of

* See documents, page 65.

rebellion long implanted and ready to start to life, it would not be difficult of accomplishment for a hostile force bombarding the towns, harassing the inhabitants with feigned attacks in front, and inciting the negroes to revolt in the rear, in this manner to ruin a valuable possession where conquest might not be practicable. During the late American war it was understood that a squadron of light frigates under commodore Porter was in preparation for a similar service, when intelligence of the treaty of Ghent being concluded was received.

In a series of years we have seen nations rise and fall, and maritime strength (hitherto the bulwark of British power) acquiring consistency or verging to decline, according to the vigour or decrepitude of governments.

In such a crisis as we have contemplated, the sole security of the British West India islands would rest essentially upon that attachment of the negro to his employer which it should be the object of the statesman, equally with the philanthropist, to bring about—an attachment founded upon reciprocal interests, alike necessary to each, deriving in common, protection from the government that shall reconcile the planters' rights with the fair claims of the labourer, and thereby preserve the colonies in their allegiance to the parent state. May the days of peace be far prolonged, and national animosities give way to that spirit of forbearance one to another which is no less consistent with prudence and sound policy than with the injunctions of our religion!

Essay II.

If, on surveying the four quarters of the globe, we consider that which has enjoyed fewest opportunities of foreign intercourse, and stretching between the Mediterranean sea in the north, and the Cape of Good Hope in the south, appears from its extraordinary extent, its variety of soil and climate, specially to claim the investigations of the cosmopolitan—we shall be led to the conclusion that circumstances of more than ordinary import in the history of that country must have operated to impede the march of civilization, and oppose the customary influence of commerce on a people.

That Africa, the subject of our inquiry, has been peculiarly depressed, is a melancholy truth, to be attributed to no moral incapacity in the inhabitants, but derived from the long history of aggressions committed upon its innocent population by almost every power possessed of colonies or plantations. Until these obstacles shall be removed—until *the progress of civilization*, and the consent of all Christian states shall have terminated the baleful consequences of a trade in slaves, by its entire suppression, there can be no confidence so indispensable to national prosperity—no security for persons or property, and therefore no improvement.

With regard to the allegations of those who maintain that there has been dealt out to the natives of Africa an inferior portion of natural gifts,—that the Almighty hath set a mark or stamp of degeneracy—equivalent, as it would seem, in the opinion of some, to a badge of servitude upon them, nothing can be more impious, unfounded, and unjust.

The assumptions of these interested advocates for the slave trade, proceed on the illogical basis of a *petitio principii*, or *begging of the question*; taking that for granted, as a fixed law of nature, which is not to be found in any system of philosophy, and is irreconcilable with the history of God's creation: for it is recorded in the Old Testament, that *God hath made man of one blood to dwell over all the corners of the earth*. If examples were wanting of nations in a state of nature emerging from equal barbarism, and advancing progressively to the summit of civilization and refinement, let us compare the state of the Roman empire under the kings, with the glorious days of the republic when a Cæsar and a Cicero directed its councils. If we recureven to the period when our ancestors,* assimilated in roughness to the animals of the field, displayed none of the higher energies of mind, we shall find no unfavourable analogy to cheer the hopes and stimulate the exertions of the friends to African improvement. The early Britons became an easy prey to the Roman conquerors, and successively to Danish, Saxon, and Norman invasions. Their huts were little superior to the den of the wild beast, and their bodies stained with woad, vied in decoration with the tattoo of the savage.

Even the later annals of our country reflect no pleasing images on the memory. The nation was long disgraced by intestine discord and by domestic cruelty. It was the revival of learning that, by enlightening the understanding, and exciting habits of reflection, humanized the mind of man, rendered him a better adept in the science of government, and taught him to doubt the purity of the national religion. The glorious reformation ensued, and the same people arose to greatness and renown, distinguished for intellectual acquirement and excellence in every department of genius, who, but a few centuries before, resembled the inhabitants of Africa as described by Sallust: "an untutored savage people, who knew no food but the flesh of wild animals, or the grass of the field, which they ate like the herds of cattle; a people without laws, without forms of government, without any authority over them; a race of wandering vagabonds, who had no settled habitation, but, when night came on, lay down to rest where chance directed them."

The light of knowledge, the influence of good impressions, and the benefit of education, produce those incidental differences in mankind which are erroneously ascribed altogether to natural causes. So far at least as the argument goes to invalidate the notions of those who venture to deny the identity of the species, and the susceptibility of culture in all, generally speaking, it is presumed to hold good, notwithstanding the degrees of advancement certainly vary in nations, as well as individuals, enjoying advantages apparently similar.

* It is necessary here to observe, that the author of this treatise wrote in his character as a British subject, the work being intended for publication by the African Institution in London, under the patronage of Mr. Wilberforce. *Note by the Editor.*

Doctrina sed vim promovet insitam,
Rectique cultus pectora roborant.

Conclusive proof has been furnished of a respectable degree of understanding prevailing in numerous individuals, natives of Africa, or descendants of Africa, who have visited England, some for improvement and the acquisition of knowledge in particular arts and branches of trade, others for commercial purposes. Two African youths, educated at Joseph Lancaster's national school in the Borough road, near London, lately returned to Sierra Leone, thoroughly instructed in the system of that establishment, and qualified to impart it to others. A multitude of instances might be adduced to show that the germ of knowledge does exist among the natives of Africa, needing only the fostering hand of cultivation to expand its blossoms. Witness the effects produced upon the dormant faculties of the negro when, transported to the labours of a plantation, he sees and adopts improved customs, acquires new skill, and learns from his fellow-labourers in captivity, to advance as it were, in the scale of being. Can that man be said to be on a level with the brute, who, endowed with thought, and the principle of imitation, the great source of human improvement, appears to be proportioned in his acquisitions to the opportunities of example and instruction that are afforded him? Uncultivated nature is uniformly rude and imbecile: By imitation alone we at first acquire knowledge, and the means of extending its bounds.

Steadfast in the observance and application of so important a faculty of the human mind, and keeping in view the tendency of man to adopt what appears, by observation and experience, to contribute to his welfare and advantage, may we not hope, in time, to furnish such examples, to communicate such lessons of melioration, important to their interests, as shall be acceptable to an untaught people, and calculated to shed the rays of knowledge on benighted Africa—to civilize her sons, and unfold the treasures of her commerce?

Will the return of the labouring Krooman, whose character appears to stand so favourably, after the expiration of his limited term of service, proposed in a former essay, have no effect upon his wondering countrymen, introduce no improvements, and diffuse not the useful arts employed in agriculture, trade, and domestic economy before unknown? Already we find the attention of the directors of the African Institution of London engaged on this most interesting object, and it is announced, in one of their annual reports, that they "contemplate engaging in America, or the West Indies, persons of good character, natives of Africa, or the descendants of Africans, who should instruct the colonists and natives in the cultivation and manufacture of indigo, in the best mode of raising and cleaning cotton, rice, and other articles of tropical culture." In this view it does appear that, to afford a settlement in Africa to such American free blacks* as may voluntarily ex-

* During the past winter many efforts were made by a number of philanthropic individuals in America, to form a voluntary colony of free people of colour. The question assumed so much importance, as to be made the subject of inquiry

press a wish to repair to that country, might be productive, under certain regulations, of beneficial lessons and instructions to the natives, whilst, at the same time, the circumstance of their speaking the English language, might render their reception in the British colony of Sierra Leone, useful and agreeable to all concerned. The senate and house of representatives of the United States of America have, very properly, resolved to provide for the necessary expenses attending this measure, and in conformity with their resolution, that "a negociation with all the governments where ministers of the United States are or shall be accredited, be entered into as to the best means of effecting an immediate and entire abolition of the traffic in slaves," and that, with regard to the measure in question, "a convention with the government of Great Britain be proposed, stipulating such terms as shall be most beneficial to the colonists, while it promotes the peaceful interests of Great Britain and the United States," it is reasonable to expect that the same spirit of amity in which these resolutions are conceived will be met with a correspondent feeling on the part of the British cabinet, and followed up by the necessary arrangements. The subject is one of considerable interest to the people of America, where the coloured inhabitants have multiplied to such an extent as, in some degree, to preclude the employment of whites in cases where it certainly would be more politic. The emigration of coloured persons to a climate undoubtedly more congenial to their constitutions than that of America is for at least six months in the year, might be promoted by holding out certain encouragements to the colonists, and probably might be influenced by the reflection that, in America they hardly can expect more than a menial employment, or aspire beyond the toil of manual labour, whereas their prospects in a country composed of persons of their own complexion, far behind them in a knowledge of the arts of civilized life—a country too under British protection, and needing the employment of their experience and exertions, may well excite the ambition and adventure even of the most prudent.

A similar policy to that pursuing by the government of the United States ought to be observed by the British legislature with respect to the labourers who may hereafter resort to the West India islands. Indeed if a prohibition were enacted to prevent their purchasing property in those islands it might have the effect at once of debarring their ultimate residence and proving beneficial to Africa by the circulation of some money, and probably a little knowledge on the return of the Kroomen to their native homes. Their permanent settlement in the West Indies ought by all means to be discouraged, because it would manifestly tend to the rapid increase of the black over the white population—a case which it is incumbent on the legislature to reverse as much as possible, and the carrying trade might be no inconsiderable object to the

by the house of representatives of the United States, and a committee was appointed to report thereon, which was accordingly done on the 11th of February. The report contains some enlightened views of the committee.

shipping interest. Were even a free intercourse as to particular articles of commerce permitted between the western coast of Africa and the West Indies it might be attended with advantage to both. The run-down before the trade winds would be short and easy, though the return to Africa would require a much longer voyage, the course being northerly to clear the trades as they are termed, until reaching a proper latitude to bear away for the coast. The idea of a commerce between the two places is started principally with a view to vessels carrying passengers being duly freighted, and in order to facilitate the remittance of property in bulk on account of the labourers. The restriction of all coffee and sugar, the produce of West India estates, being consigned to the mother country alone, would of course continue to be enforced.

It is material to observe that, by opening as many sources as possible to African commerce, we pave the way for a true development of its resources, and more especially, a beneficial interest in that country. The British trade to India, first confined to a humble factory on the Coromandel coast, of scarce a mile in circumference, grew by degrees in extent and importance, until merchants became the sovereigns of the East, and an empire greater than that of the Mogul, proverbial for wealth—prolific in all that aggrandizes the possessor, rewarded the labours of a speculative company. Zeal, perseverance, constancy, valour in its servants, were the qualities leading to success, and may not the imagination conceive at some future day another Asia emerging from amid the clouds and darknesss that envelop Africa? The same means are ready to be employed, the same exertions may insure similar results: the important measure of raising and maintaining on liberal terms a native Sepoy force, sealed the doom of Eastern Rajahs, and proved to be the certain precursor of those splendid achievements which extended the British empire over all the provinces, from the Indus on the one hand to the coasts of Ava on the other. The mutual jealousies of the native chiefs served only to keep each other in check, and neutralize their separate oppositions, whilst it afforded constant ground of foreign arbitration and interference. The reign of imbecility, in short, yielded to that of wisdom, foresight and vigour. At length the mighty torrent of irresistible power rolling on, as the Ganges, its rapid course, and swollen by tributary streams, swept before it antiquated establishments, reared by superstition, and long worshipped by a false idolatry. From the moment of the tide of *opinion* setting in, opinion of the superiority of the British name—from that moment the conquest of Asia is to be dated. It is so in most uncivilized countries.

Who shall say that to terminate the thralldom under which Africa now groans to abolish the iniquities of princes and potentates, dealers in human flesh, accustomed to engage in war solely to profit by the sale of prisoners, will not meet the concurrence of Africans themselves? If the friend to civilization and humanity needs a further persuasion to engage his assent, let it be considered that the regeneration of Africa is not so hopeless as to deter experiment; that she is represented in Sacred History to have sent eight

hundred bishops to the Holy Land; that Hannibal, who certainly possessed consummate capacity as a commander, was of Mauritanian blood, and that Terence was an African slave. Let him remember, that in the present day, the natives, as appears from the reports of travellers are advancing from brutal manners towards habits of order and decorum, that commerce, tillage, barter, policy, manufacture, find their way into the interior from the west and from the north. Europeans fortify their sea ports, enlarge their trade, traverse in caravans the vast expanse of internal territory, and teach them geography by their example, astronomy by their glasses, their telescopes and their mechanic powers. It is impossible to peruse the travels of Mungo Park, of Houghton, Horne-mann, Barrow, Corry, Golberry, Winterbottom and Wadstrom, without being struck with the vast resources of commerce and agricultural wealth throughout that immense tract of country, still latent, and promising abundantly to reward the enterprize of the colonist.

Sallust, introducing a brief account of Africa in his history of the Jugurthine war, describes the soil on the sea coast as producing grain in abundance and affording good pasture for cattle.* Its attractions, even in the time of the Romans, appear to have been duly appreciated, since we find that the consuls ever had an eye to Africa as an important acquisition, and Scipio Africanus, so styled in honour of his great military achievements in that country, Metellus and Marius, deemed it a field worthy of the employment of their exalted rank and abilities.

In considering the various articles of exportable produce which may be cultivated with advantage in Africa, our attention is particularly drawn to cotton, entering as it does so extensively into the uses even of the Africans themselves, as well as of manufacturing industry in Europe. With the mode of raising the cotton tree, the natives of the western coast of Africa are almost universally acquainted, although one particular species of cotton, most cultivated there, (and from which they manufacture cloth of an excellent fabric,) is so unsuitable to the European market, that the price which it would obtain would not repay the expense of raising it, and conveying it to a foreign port. Seeds, however, of the prime Georgia as well as Brazil cotton have been introduced into the country, and as it requires only six or seven months from the time of sowing to bring it to maturity, there is every reason to expect that the growth of a superior species of this plant will become general. The process of preparing it for sale is short and simple.

Gold is found in many parts of Africa, sometimes in small lumps, in a pure state, but, for the most part it is procured by merely washing, with care, the sand taken from the bed of the river. This circumstance proves the existence of gold mines in

* The British squadron in the Mediterranean during the late war, drew the most of their supplies from the north of Africa, and wheat was exported thence in considerable quantities to Gibraltar and Cadiz, from which places it found its way over Spain and Portugal.

the country, which, it is presumed may be found and opened, should the advancing civilization of Africa admit of that free intercourse which would give an opportunity to European mineralogists of exploring this source of wealth.

Ivory has hitherto formed, next to slaves, the largest branch of African commerce, and its quantity will of course not be lessened by the new circumstances in which Africa is placed.

Bees wax may be obtained in every part of Africa, and in some places, particularly the rivers Gambia and Gaboon, it forms a considerable part of the present exports. It might of course be greatly increased by encouraging the rearing of bees.

Dye woods of various kinds including *Cam-wood*, *Bar-wood* and *Fustick* are now exported, the two first in considerable quantities from Africa. Requiring no previous cultivation, but only to be cut down in order to be brought to market, and thus affording a present temptation to exertion, the commerce in articles of this description has not been equally affected by the slave trade as the commerce in those articles which require previous culture, and the profits of which are remotely prospective. Without doubt, however, when the intercourse of Africa shall become more open and secure, not only may the trade in the dye woods already specified be increased, but other valuable dye woods will probably be discovered.

Many kinds of *timber* are likewise produced in Africa, which are supposed to be well adapted for the use of cabinet makers, inlayers, and even of shipwrights. *Medicinal herbs and drugs* of an infinity of species likewise abound. *Castor oil*, *musk*, *Indian arrow root*, *tapioca* and *sago*, are produced in considerable quantities.

Gum senega and *gum copal* are imported from Africa into England in a quantity nearly equal to the demand, and might be more extensively procured. Besides these there are many other gums in Africa, which, if properly examined, might prove useful, both to our manufacturers and chymists. Gums, as was observed in the case of dye woods, require no cultivation, and hardly any labour to prepare them for market.

Palm oil, which is useful in the manufacture of soap, may be obtained in considerable quantities.

Indigo grows wild in almost every part of the African coast, and might therefore easily be brought into cultivation. Almost all the indigo which is now consumed in Europe, is imported from the East Indies under the disadvantages of a voyage more than thrice as long as that from Africa. Besides the indigo, there is another plant which the natives use as a blue dye, which appears to impart a more indelible colour, and which, should it stand the test of experiment, might be cultivated.

Rice forms the principal food of the Africans, and might doubtless become an article of export for the supply of the West Indies, as provided for in the former part of this essay.

Colonel Maxwell, commandant at Sierra Leone, has erected, among other things, a saw-mill to go by water; and a mill for

cleaning rice. Both of these, and particularly the latter, are calculated to be highly beneficial to the settlement. Colonel Maxwell states, that all the natives in the neighbourhood of Sierra Leone were busily employed in cultivating rice, which, he says, might be grown in almost any quantity; and, as the *white* rice of Africa is of the best quality, he thinks that, if cleaning mills were erected at Sierra Leone, African rice might soon become an article of considerable export.

Several varieties of the *coffee*, one of a kind not inferior, it is supposed, to the Mocha, are found growing wild in the mountains of Sierra Leone. The cultivation of this article has been begun at that colony, and promises to succeed. It may thence be extended to every part of the continent.

Sugar cane of an excellent quality grows with hardly any culture, in many parts of Africa. Its existence and luxuriant growth seem to show the fertility of the country.

Malaguetta pepper, an article in considerable demand, grows wild in great abundance on the windward coast.

A variety of other species, including the *cayenne*, *ginger*, *cubebs*, *cardamums*, species of *nutmeg*, and *cinnamon*, are found in Africa, and might be cultivated with advantage.

Tobacco is cultivated on a small scale, in various parts of Africa, and might, if it were desirable, be cultivated still more extensively.

A few *hides* are now imported from the river Gambia: the number will doubtless increase, as cattle can be more securely reared.

Sponge may also be procured thence.

But besides the articles above enumerated, as already existing in Africa, there are others of a very valuable kind, such as *opium*, which might easily be transported thither. The *cochineal* and the *silk worm* might also be reared there. In short, it may be said, that there are no articles produced between the tropics which may not be naturalized in that part of Western Africa which has hitherto been the theatre of the slave trade.

It is hardly necessary to add that all the different fruits, esculent roots, and grains, which grow in other tropical countries are raised there; such as cocoa nuts, limes, lemons, oranges, plantains, bananas, papaws, guavas, melons, pine apples, cashew nuts, tamarinds, pumpkins, yams, cassada, eddoes, Indian corn, millet, &c. No part of the fruits which have been mentioned, however, could be made to form any part of the return cargo, on account of the length of the voyage, except in the shape of pickles or preserves.

Salt is manufactured on the sea coast (for the purpose of supplying the interior where it is in high demand,) and the quantity might be much enlarged.

Boom is a place never equalled in Africa for fertility. *Sugar cane* grows wild in Bagroo equal to any in the West Indies. And

as for the interior country behind the Sherbro, it must be rich, on account of the quantity of rice and cotton cloth they bring down.

The Satees or travelling merchants carry the fruit of the *cola tree*, famed for its tonic qualities, from the neighbourhood of Sierra Leone, to every part of the continent, even to Egypt and Abyssinia.

In "an account of the native Africans in the neighbourhood of Sierra Leone; to which is added, an account of the present state of medicine among them," (sold by Hatchard, Piccadilly,) is contained much important information on the subject of the medicinal plants which are found growing in Africa.

The Arabic language has been extended by means of the Mahomedans, over a large part of the western coast of Africa. The knowledge of this language by persons resident on the coast, would greatly tend to facilitate our intercourse with the interior, while it would afford a ready means of spreading useful knowledge throughout Africa.

The Susoo language too, generally spoken in many of the provinces, is remarkably simple and easy of acquisition; a circumstance that should encourage perseverance in acquiring it.

For a more detailed account of the productions of Africa, particular reference should be had to the labours of the Sierra Leone Company, of the African Institution, and of the African Association to promote discoveries in the interior of the continent of Africa.

In the works of those writers before enumerated, will be found matter of the highest interest to every friend of this important and interesting cause; but there are impediments to the success of any plan of melioration still existing, which have long prevailed, and call upon all good men to aid in the removal. So long as the traffic in slaves to Cuba and Brazil shall continue without remission, the abolition of other countries will, as to Africa, the great object of our solicitude, be ineffectual to produce the relief she needs. Desolation continues to mark the ravages of the existing trade, and not until its final extinction by a general adoption of the system of hired labourers, practised and recommended, can any hope be formed of civilizing Africa. Tillage and all the arts of industry are discouraged by the insecurity of persons and of property. "Why should I labour?" inquires the negro; "why amass wealth?" "I must still be a slave, my profits may still be seized and myself sold to the white men."

Similar reasoning was heard by Chenier in Morocco, by Volney in Syria, by Bernier in Mogulstan; the precarious state of man, the uncertainty of possession checked the industry of individuals in those countries.

—' What then avail their fatal treasures, hid
Deep in the bowels of the pitying earth?
What all that Africs golden rivers roll,
Her odorous woods, and shining ivory stores?
Ill fated race! the softening arts of peace,
Whate'er the humanizing muses teach;

The godlike wisdom of the temper'd breast,
 Progressive truth, the patient force of thought,
 Investigation calm, whose silent powers
 Command the world! the *Light* that leads to *Heaven*,
 Kind equal rule, the government of laws,
 And all-protecting *Freedom*, which alone
 Sustains the name and dignity of man:
 These are not theirs.'

THOMSON.

To impart these blessings, so feelingly described by the poet, to suffering Africa, will be one of the happy consequences of an extension of British rule, and the administration of British laws in the interior of that vast continent. The day may yet appear, when, rivalling Asia in fertility and cultivation:—surpassing her in the advantages of proximity to Europe, a new empire shall arise, the special object of care and protection, dispensing order, civilization and happiness, and securing to its subjects the privileges of their being.

The man who shall take the lead in this great work, regenerating, under Providence, a depressed and unhappy land, will deserve the lasting gratitude of enslaved millions,* and the choicest honours of his approving country.

Letter from Governor Elliot, to the Earl of Liverpool, Secretary of State; dated Antigua, Nov. 21, 1810.

The governments of the smaller islands were formed in times when many of the proprietors lived upon their estates, and the white population was, in some instances, perhaps ten times as numerous as it now is. Of the few white inhabitants who remain, managers, overseers, self-created lawyers, self-educated physicians, and adventurous merchants, with little real capital and scanty credit, compose the greatest part. The acquirements of education among many of this description of persons, are very unequal to the task of taking a share in the governments. The prevalence of principle, either moral or religious, is also, I fear, not to be fairly calculated from the repetition of the hacknied expressions, of which an ostentatious use is frequently made in addresses, and on all occasions meant to meet the public eye at home.

To collect from such a state of society, men fit to be legislators, judges or jurymen, is *perfectly impracticable*. Individual interest—personal influence—animosity of party feuds, weigh down the scale of justice, and divert the course of legislative authority into acts of arbitrary and unjustifiable power, cloaked under the semblance, and dignified with the name, of constitutional acts.

Run-away Slaves.

During the progress of the war, a considerable number of slaves, the property of citizens of the United States, escaped to

* Golberry, like Mungo Park, shows that the negro chiefs enslave, in the interior, millions yearly: while the traders take off only 30 or 40,000.

the British forces, induced to do so by proclamation, issued by British officers, promising them, in the name of His Majesty, protection and freedom. At the conclusion of the war, seven hundred and two slaves, it is stated, were carried away, in British ships, from Cumberland Island and its vicinity, in the state of Georgia, and a number perhaps still greater from Tangier, in the state of Virginia.

ART. IX.—*Painting of "The Entrance of Christ into the City of Jerusalem."*—By H. SARGENT, Esq. of Boston.

OUR present number is embellished with an engraving of this justly admired production, from a copy taken by Mr. Penniman. We are indebted to the politeness of Col. Sargent for this privilege, as well as for permission to copy his great work, "*The Landing of our Forefathers on the Rock at Plymouth*," than which there can scarcely be any subject for a picture more interesting to our countrymen.

We must content ourselves at present with inserting the key or explanation, as a necessary accompaniment to the engraving, and propose hereafter, when we are enabled to give "*The Landing of our Forefathers*" to enter into an examination of both these subjects.

The names of West, Stewart, Trumbull, Vanderlyn, Sully, and the amateur artist whose labours form the subject of our present notice, do honour to our native talent, and our legislature, in conformity to the example of every enlightened government, have wisely resolved to encourage a propensity to works of taste, by affording public employment for the development of a rising genius for the Fine Arts. The occupation of Trumbull on a series of historical subjects, illustrative of the principal events in the ever-memorable era of the revolution, by order of congress, affords a pleasing evidence of attention prevailing in favour of this department of excellence, which we hope to see extended to the association of some of those artists just mentioned. The sentiments lately expressed by an honourable member in the house of representatives display an unison of feeling with the desire of, we believe, all who wish well to the progress of national taste.

"Permit me," said Mr. Newton (of Virginia) "to congratulate my country on her rising fame. The genius and skill displayed by our celebrated masters, secure to each an imperishable fame, and to their country true renown. A new epoch has commenced. Its progress is auspicious. The Grecian, Italian, Flemish, French, and British schools will be rivalled and equalled in time by our own. I congratulate those who are endowed with genius, but whose means are too limited to enable them to seek, in distant regions, the acquirements necessary to form and fix their judgments, and to give to their taste the characters of delicacy and correctness, on the prospect they have of pursuing their studies in their native land, under political institutions that give its genius full scope, and the enjoyment of its creations, and that leave to

emulation the influence of developing its powers. The inspiration thus kindled, diffused and made active, will bestow on their works whatever can delight and enchant the mind, and soften and meliorate the heart."

Mr. Sargent is a self-taught genius, and influenced alone by a love of the arts, in the prosecution of his pencil, being a gentleman of fortune. He is the brother of Lucius M. Sargent, esq. the poet, and author of several admired patriotic songs.

It is somewhat singular that, although Mr. Sargent has executed two such fine paintings, his merits have been little noticed out of Boston. He is not, it is true, an artist by profession. Indeed, we have observed with regret that various subjects of general interest are confined to particular sections of the union. Much reciprocal information might be disseminated by the communications of intelligent correspondents in the different states, which will always meet a ready notice in our pages, and we shall be highly indebted to all such friends to knowledge and to their country.

EXPLANATION OF THE PICTURE.

The subject is more particularly taken from the 35th to the 38th verses, inclusive of the 10th chapter of St. Luke.

"And they cast their garments upon the colt, and they set Jesus thereon; and as he went they spread their clothes in the way.

"And when he was come nigh, even now at the descent of the Mount of Olives the whole multitude of the disciples began to rejoice and praise God with a loud voice, for all the mighty works that they had seen; saying, blessed be the king that cometh in the name of the Lord; peace in Heaven, and glory in the highest."

THE principal figure near the centre of the picture is intended to represent the person of JESUS CHRIST, seated upon the wild ass's colt, "on which never man rode."

The animal is supposed to be directed by the will of its rider, having neither bridle or other visible means of direction. The irradiation of supernatural light around the head of the Saviour, relieves and surrounds the whole figure. At the right hand of Jesus is Lazarus, who a short time before the entrance into Jerusalem, had been raised from the dead. The female next to him, with both hands raised and drapey over her right arm, is Martha, the sister of Lazarus. The full length figure, with dark curled hair, is Judas Iscariot. Farther to the right of Jesus, with a bald head, is St. Peter. Above, with his head bound, is one diseased. Below, and in the foreground, a Roman soldier or Centurion, has thrown his sword at the feet of Jesus, expressive of his entire submission to his will. This act of the Centurion, is intended as a contrast to that of a conspirator in the dark corner of the picture, who in the agitation and eagerness of the moment, whilst pointing with one hand, has involuntarily drawn his dagger with the other. Near the Centurion are his wife and family. In the extreme corner of this part of the picture, is "one of those who sold doves." Higher up, leaning on his staff, a soothsayer or magician is discovered in company with the conspirators. The woman bearing an olive branch, is one of the multitude which followed Jesus. Behind her is a young female, intended for the daughter of Jarius, miraculously raised from the dead,

with her father, a ruler of the synagogue, distinguished by his raised hands and a turban on his head. Near the frame and not far from the conspirators, are two men, one of whom is showing his once crippled arm to his astonished friend.

The multitude is seen in perspective, winding over the rocks in the back ground, where it is finally lost to the view by its distance. Many are seen passing under the arches of an ancient aqueduct, at too great distance to be particularly noticed.

On the other side of the picture, and in the foreground are several females on their knees. Mary Magdalene is seen having thrown off her outward garments. The next, with her hands crossed, is intended for "Joanna, the wife of Chuza, Herod's steward," with Mary (the mother of James) and Susanna, women who had been healed of evil spirits and infirmities, "who had ministered unto Christ of their substance," and who, after the crucifixion, discovered that Jesus had risen from the sepulchre, and went and informed the apostles.

The person a little above Mary Magdalene, is Nicodemus, a Pharisee, and a ruler of the Jews, who worshipped Jesus in secret, "the same that went to him by night and said unto him. "Rabbi, we know that thou art a teacher come from God: for no man can do these miracles that thou doest, except God be with him," &c. A female in front of Nicodemus, has caught up the garment of Christ to put it to her lips. Below, near the feet of the ass, one of the multitude has prostrated himself to the ground, expressive of his entire devotion. A blind man, who is also lame, is behind Nicodemus, and his aged wife, who is near him, has one hand on his shoulder, while the other is raised in the moment of expectation, believing, that should he be able to touch the garment of the Saviour, he will be made to see. She is supposed to have informed him of the near approach of Christ, whilst he, full of faith and hope, gropes with his hand in full expectation of beholding the light. On the right, a tall figure, and one with a turban represent certain Greeks, "who had come up to Jerusalem, to worship at the feast of the passover;" they had a wish to see Jesus, and applied for that purpose to one of the apostles, Philip of Bethsaida, of Galilee, who is seen near them on the extreme right. At the left hand of Jesus, is John, Thomas, and others, his disciples. A man with a thin pallid countenance, who has been lame, raises his crutches in the joy of the moment denoting that he is no longer a cripple. On his left a female, with a turban, is pressing forward with her child to touch the garment of Christ, as was the custom, particularly for those who were troubled with any malady. Next to the child is seen a man, with dark visage, having a phylactery on his forehead; he is one of the Pharisees, who cried out from the multitude, "Master; rebuke thy disciples;" to whom Jesus answered, "I tell you if these should hold their peace, the stones would immediately cry out."

Others, who cannot see for the "press," raise their hands or their children, and shout with the multitude. Over the man with the crutches, is seen Caiaphas, the high priest, who with a few attendants, are standing at a distance on the ruins of a battered wall, beyond which rises a partial view of the city of Jerusalem, with its temple, towers, &c. Here the multitude are seen collecting upon the battlements and in the porch of a temple; here also mountains and lofty precipices rise, on which are castles overlooking the whole. The city is obscured by the mists, and shadows of the driving clouds, portending a rising storm.

ART X. *Anecdote of Colter, one of Lewis and Clarke's party—his narrow escape.* From Bradbury's travels in the interior of America, in 1809, 1810, and 1811.

THE treatment experienced by Colter is to be ascribed to the circumstance of his having spent some time among the Crow Indians, a tribe at enmity with the Blackfeet nation, and accompanying them in one of their attacks upon the latter,—his participation in this affair did not escape the retentive recollection of Indian memory, and when he came amongst the Blackfeet, his safety depended on secretion.

The hostility of the Blackfeet Indians in this case may be traced moreover to the circumstance of one of them having been killed by Lewis. They are on the whole, a peaceable tribe, now friendly to the United States, but like the rest, observe the *lex talionis*. They inhabit a part remote from the white settlements, on the head waters of the Missouri.

“ This man came to St. Louis in May, 1810, in a small canoe, from the head waters of the Missouri, a distance of three thousand miles, which he traversed in thirty days; I saw him on his arrival, and received from him an account of his adventures after he had separated from Lewis and Clarke's party: one of these, from its singularity, I shall relate. On the arrival of the party on the head waters of the Missouri, Colter, observing the appearance of abundance of beaver being there, he got permission to remain and hunt for some time, which he did in company with a man of the name of Dixon, who had traversed the immense tract of country from St. Louis to the head waters of the Missouri alone. Soon after he separated from Dixon, and *trapped* in company with a hunter named Potts; and aware of the hostility of the Blackfeet Indians, one of whom had been killed by Lewis, they set their traps at night, and took them up early in the morning, remaining concealed during the day. They were examining their traps early one morning, in a creek about six miles from that branch of the Missouri called Jefferson's Fork, and were ascending in a canoe, when they suddenly heard a great noise, resembling the trampling of animals; but they could not ascertain the fact, as the high perpendicular banks on each side of the river impeded their view. Colter immediately pronounced it to be occasioned by Indians, and advised an instant retreat, but was accused of cowardice by Potts, who insisted that the noise was caused by buffalo, and they proceeded on. In a few minutes afterwards their doubts were removed, by a party of Indians making their appearance on both sides of the creek, to the amount of five or six hundred, who beckoned them to come ashore. As retreat was now impossible, Colter turned the head of the canoe to the shore; and at the moment of its touching, an Indian seized the rifle belonging to Potts; but Colter, who is a remarkably strong man, immediately retook it, and handed it to Potts, who remained in the canoe, and on receiving it pushed off into the river. He had scarcely quitted the shore when an arrow was shot at him, and he cried out, “ *Colter, I am wounded.*” Colter remonstrated with him on the folly of attempting to escape, and urged him to come ashore. Instead of complying, he instantly levelled his rifle at an Indian, and shot him dead on the spot. This conduct, situated as he was, may appear to

have been an act of madness; but it was doubtless the effect of sudden, but sound reasoning; for if taken alive, he must have expected to be tortured to death, according to their custom. He was instantly pierced with arrows so numerous, that, to use the language of Colter, "*he was made a riddle of.*" They now seized Colter, stripped him entirely naked, and began to consult on the manner in which he should be put to death. They were first inclined to set him up as a mark to shoot at; but the chief interfered, and seizing him by the shoulder, asked him if he could run fast? Colter, who had been some time amongst the Kee-kat-sa, or Crow Indians, had in a considerable degree acquired the Blackfoot language, and was also well acquainted with Indian customs, he knew that he had now to run for his life, with the dreadful odds of five or six hundred against him; and those armed Indians; therefore cunningly replied that he was a very bad runner, although he was considered by the hunters as remarkably swift. The chief now commanded the party to remain stationary, and led Colter out on the prairie three or four hundred yards, and released him, bidding him *to save himself if he could.* At that instant the horrid war whoop sounded in the ears of poor Colter, who, urged with the hope of preserving life, ran with a speed at which he was himself surprised. He proceeded towards the Jefferson Fork, having to traverse a plain six miles in breadth, abounding with the prickly pear, on which he was every instant treading with his naked feet. He ran nearly half way across the plain before he ventured to look over his shoulder, when he perceived that the Indians were very much scattered, and that he had gained ground to a considerable distance from the main body; but one Indian, who carried a spear, was much before all the rest, and not more than a hundred yards from him. A faint gleam of hope now cheered the heart of Colter; he derived confidence from the belief that escape was within the bounds of possibility, but that confidence was nearly being fatal to him, for he exerted himself to such a degree, that the blood gushed from his nostrils, and soon almost covered the fore part of his body. He had now arrived within a mile of the river, when he distinctly heard the appalling sound of footsteps behind him, and every instant expected to feel the spear of his pursuer. Again he turned his head, and saw the savage not twenty yards from him. Determined if possible to avoid the expected blow, he suddenly stopped, turned round, and spread out his arms. The Indian, surprised by the suddenness of the action, and perhaps at the bloody appearance of Colter, also attempted to stop, but exhausted with running, he fell whilst endeavouring to throw his spear, which stuck in the ground, and broke in his hand. Colter instantly snatched up the pointed part, with which he pinned him to the earth, and then continued his flight. The foremost of the Indians, on arriving at the place, stopped till others came up to join them, when they set up a hideous yell. Every moment of this time was improved by Colter, who, although fainting and exhausted, succeeded in gaining the skirting of the cotton wood trees, on the borders of the fork, through which he ran, and plunged into the river. Fortunately for him, a little below this place there was an island, against the upper point of which a raft of drift timber had lodged, he dived under the raft, and after several efforts, got his head above water amongst the trunks of trees, covered over with smaller wood to the depth of several feet. Scarcely had he secured himself, when the Indians arrived on the river, screeching and

yelling, as Colter expressed it, "like so many devils." They were frequently on the raft during the day, and were seen through the chinks by Colter, who was congratulating himself on his escape, until the idea arose that they might set the raft on fire. In horrible suspense he remained until night, when hearing no more of the Indians, he dived from under the raft, and swam silently down the river to a considerable distance, when he landed, and travelled all night. Although happy in having escaped from the Indians, his situation was still dreadful: he was completely naked under a burning sun: the soles of his feet were entirely filled with the thorns of the prickly pear; he was hungry, and had no means of killing game, although he saw abundance around him, and was at least seven days journey from Lisa's Fort, on the Bighorn branch of the Roche Jaune river. These are circumstances under which almost any man but an American hunter would have despaired. He arrived at the fort in seven days, having subsisted on a root much esteemed by the Indians of the Missouri, now known by naturalists as *Psoralea esculenta*.

After the preceding extract it seems but justly due to add the following testimony in favour of Indian hospitality. *From the same.*

No people on earth discharge the duties of hospitality with more cordial good-will than the Indians. On entering a lodge, I was always met by the master, who first shook hands with me, and immediately looked for his pipe: before he had time to light it, a bear-skin, or that of a buffalo, was spread for me to sit on, although they sat on the bare ground. When the pipe was lighted, he smoked a few whiffs, and then handed it to me; after which it went round to all the men in the lodge. While this was going on, the squaw prepared something to eat, which, when ready, was placed before me on the ground. The squaw, in some instances, examined my dress; if any repair was wanting, she brought a small leather bag, in which she kept her awls and split sinew, and put it to rights. After conversing as well as we could by signs, if it was near night, I was made to understand that a bed was at my service.

ART. XI.—*Notoria; or Miscellaneous Articles of Philosophy Literature, and Politics.*

To the editor of the Monthly Magazine.
SIR—The French chymists have, among other traits of their superior ingenuity, been laudibly industrious in turning to the best account that prolific plant THE POTATO; and, during a late sojourn in Paris, I collected the following particulars in regard to two very important uses of its roots and its tops. They are, through your valuable Magazine of science and truth, at the service of the world.

Bath, Aug. 1817. B. JONES.

—
On the Distillation of Spirits of Wine (Alcohol) from Potatoes.

A French lady, the countess de N***—whom political events compelled to change her chateau, on the banks of the

Saone, for a cottage eight leagues from Vienna—has established, on the small farm she occupies, a distillation of brandy from potatoes; which she has found to be very lucrative. The brandy of twenty degrees of Reaumur is very pure, and has neither taste nor smell different from that produced by the distillation of grapes. The method she employs is very simple, and within every person's reach.

Take 100lb. of potatoes, well washed, dress them by steam, and let them be bruised to powder with a roller, &c. In the mean time, take 4lb. of ground malt, steep it in luke-warm water, and then pour into the fermenting back, and pour on it twelve quarts of boiling water; this water is stirred about, and the

bruised potatoes thrown in, and well stirred about with wooden rakes, till every part of the potatoes is well saturated with the liquor.

Immediately six or eight ounces of yeast is to be mixed with twenty-eight gallons of water, of a proper warmth to make the whole mass of the temperature of from twelve to fifteen degrees of Reaumer; there is to be added half-a-pint to a pint of good brandy.

The fermenting back must be placed in a room to be kept, by means of a stove, at a temperature of fifteen to eighteen degrees of Reaumur. The mixture must be left to remain at rest.

The back must be large enough to suffer the mass to rise seven or eight inches, without running over. If, notwithstanding this precaution, it does so, a little must be taken out, and returned when it falls a little: the back is then covered again, and the fermentation is suffered to finish without touching it—which takes place generally in five or six days. This is known by its being perceived that the liquid is quite clear, and the potatoes fallen to the bottom of the back. The fluid is decanted, and the potatoes pressed dry.

The distillation is by vapour, with a wooden or copper still, on the plan of count Rumford. The product of the first distillation is low wines.

When the fermentation has been favourable, from every 100lb. of potatoes, six quarts and upwards of good brandy, of twenty degrees of the areometer, are obtained; which, put into new casks, and afterwards browned with burnt sugar, like the French brandies, is not to be distinguished from them.

The countess de N. has dressed and distilled per diem 1000lb. of potatoes at twice, which gives sixty to seventy quarts of good brandy. We may judge from this essay what would be the advantages of such an operation, if carried on on a grand scale, and throughout the year.

The residue of the distillation is used as food for the stock of her farm; which consists of thirty-four horned cattle, sixty pigs, and sixty sheep: they all are excessively fond of it when mixed with water, and the cows yield abundance of milk. The sheep use about five quarts per diem each; viz. one half in the morning, and one half at night. The malt must be fresh-ground: the countess has it ground every week.

Remarks, by Judge Cooper.

On the above article respecting potatoes, it may be observed, that ardent spirit distilled from potatoes has been a practice in Switzerland for these twenty-five years; and has been practised in the back parts of Pennsylvania for at least these fifteen years: so far back as that, potatoe-whiskey was made in Lycoming county.

The potatoes may be either baked or steamed. If steamed, the most economical mode of so doing when it is pursued as a business, is this: fix in the ground one or more cast-iron boilers with a flange resting on the surface of the ground. The fire place is made underneath below the surface, and the chimney carried up on one side. The width of the boiler should be such as to admit of a hogshead just to enter into it at the mouth. Wash the potatoes with a birch broom in a vessel through which a stream of water passes, or in a trough under a pump. Bore augur-holes in the bottom of the hogshead; fill the hogshead with washed potatoes. Half fill the boiler with water, or make it three parts full. Roll on the hogshead full of potatoes; cover them loosely with the head. Make the water boil. The steam passes through the augur-holes, and in half an hour your potatoes are cooked either for cattle or the distillery. Have ready another hogshead full, and when one is steamed, roll it off and roll on another.

These potatoes mashed, and treated like chopped rye, will yield a pleasant wholesome spirit. Now, as to the profit.

The quantity of whiskey procured, seems to depend on the quantity of starch in the grain distilled: for starch is convertible into sugar, and sugar into alcohol by oxygenation: pursue the process of oxygenation, and you convert alcohol into vinegar.

Rye contains about thirty-six, or from that to forty per cent. of starch, while potatoes do not contain more than twenty per cent.

Suppose an acre well cultivated produces twenty bushels of rye on the average of the crop of a plantation; and each bushel of rye weighs 60lbs: then the weight of rye on an acre will be 1200lbs. and it may yield forty per cent, or 480lbs. of starch or matter convertible into whiskey.

Let an acre of potatoes be calculated at 250 bushels, each bushel weighing 60lbs. and the quantity of starch

one fifth of the whole. Then an acre of potatoes will yield three thousand pounds weight of starch convertible into alcohol. The chopping may be set against the steaming, for what with toll and carriage chopping will diminish the quantity one ninth, or one eighth.

These facts and suggestions merit consideration.

T. C.]

—
On the Means of extracting Potass from Potato-tops.

One of the most important discoveries of the present day is that of a druggist of Amiens, by which Europe will be freed from the heavy tribute she pays to America for the article of potass. The author of this discovery has, in a truly patriotic manner, made known his discovery—after ascertaining, by a series of experiments, the truth of his conclusions. The French Society of Agriculture, and the Society for Encouragement of National Industry, have both named commissioners to frame official reports; in the mean time, we feel it important to give an account of the process, in the hope that, even in the present season, it may be turned to account—as it interests landlords, tenants, merchants, and manufacturers.

It is necessary to cut off the potato-tops the moment that the flowers begin to fall, as that is the period of their greatest vigour; they must be cut off at four or five inches from the ground, with a very sharp knife. Fresh sprouts spring, which not only answer all the purposes of conducting the roots to maturity, but tend to an increase of their volume, as they (the sprouts) demand less nourishment than the old top. The tops may be suffered to remain on the ground where cut; in eight or ten days they are sufficiently dry without turning, and may be carted, either home or to a corner of the field, where a hole is to be dug in the earth, about five feet square, and two feet deep (the combustion would be too rapid, and the ashes cool too quick, and thereby diminish the quantity of alkali, were they burnt in the open air). The ashes must be kept red-hot as long as possible: when the fire is strong, tops that are only imperfectly dried may be thrown in; and even green ones will then burn well enough.

The ashes extracted from the hole must be put in a vessel, and boiling

water be poured upon it, as then the water must be evaporated: for these two operations potato-tops may be used alone as firing in the furnace, and the ashes collected. There remains after the evaporation a dry saline reddish substance, known in commerce under the name of *salin*; the more the ashes are boiled, the grayer and more valuable the *salin* becomes.

The *salin* must then be calcined in a very hot oven, until the whole mass presents a uniform reddish brown. In cooling it remains dry, and in fragments—bluish within, and white on the surface; in which state it takes the name of potass.

The ashes, exhausted of their alkaline principle, afford excellent manure for land intended to be planted with potatoes.

The following is a table of the results obtained in France:—

An acre planted with potatoes,	
at one foot distance, gives	lbs.
plants	40,000
These 40,000 plants yield, on an	
average, 3lb. per plant at	
least, or of green tops	120,000
On drying they are reduced to	40,000
This quantity produces of ashes	7,500
The evaporation gives of ashes,	
exhausted of alkali	5,000
Salin	2,500
The salin loses ten to fifteen per	
cent. in calcination, which gives	
of potass	2,200

All these estimates are taken at the lowest, by which it is evident that upwards of 2,000lb. of potass may be obtained, in addition to an increased crop, from every acre of potatoes, or a value far exceeding that of the crop itself. Farmers of course will next year turn this discovery to the best account, in planting those potatoes which yield the greatest quantity of tops. The expenses of preparing the potass, as above described, including every thing, is about six guineas per acre.

* * I cannot conclude these articles without inviting the cultivators of England and Ireland to instantly seize the immense advantages afforded by the two discoveries here announced. The former will free us from our tribute to France for brandies, a commerce which the emperor Napoleon turned to such good account during the war—insisting on British vessels, which ear-

ried over staple commodities to France, to return with cargoes of wine and brandy; and the latter will, it is trusted, free commerce, and our diers in particular, of the necessity of applying to Russia and America for potass, of which our consumption is immense. I will, in an early number, give the French methods of making the best brandies, which I collected in the same capital.

Mon. Mag.

—
Anecdotes of Bonaparte.

One day, Bonaparte, seeing near his person one of those beings who know not a posture sufficiently humble, by which they suppose they can obtain some favors, said to those who surrounded him, "I know not how it happens, that, in order to understand this man, who is eight inches taller than myself, I am obliged to stoop every time that I speak to him."

As a body of troops passed in review before Bonaparte at the Carrousel, his horse became so unruly, that his hat fell off in his exertions to restrain it. A young soldier, who happened to be near him, picked up the hat, and presented it to him. "Thank you, captain," said Napoleon. "In what regiment, sire?" said the young man. A few days after, the young man, with whose answer Bonaparte was much pleased, was unexpectedly raised by brevet to the rank of captain in the Imperial Guard.

ib.

—
Interview with Napoleon Bonaparte at St. Helena.—

The subjoined was received here from London in the most authentic channel of a communication from the Reverend Mr. Griffith A. M. Fellow of Trinity College, Cambridge, chaplain to the embassy to China, and Preceptor to Lord Amherst's two sons. This gentleman in company with his lordship, had a long interview with Buonaparte, on their return from China.

He asked a number of questions without waiting for many answers; he began by asking from what university? what is the religion of the Chinese? do they believe in the immortality of the soul? he said to Ellis that Russia was the power now to be feared. If she organized Poland she would prove invincible. That she always had a longing after Turkey, and he had always stood

in her way in that quarter: that Austria would compromise the matter with her for a few provinces—that the French and English were the only disciplined troops; but what can you do, though you have on your side the *bravoure des siecles*, whilst you have only 45,000 men, you should stick to the empire of the sea and not interfere with continental politics (rather sly) and then you will send your ambassadors to every court and ask what you please. I know the mischiefs of a blockade. A coast blockaded, is in the state of my face says he, which is now rubbed over with oil, and deprived of its natural perspiration. Your countrymen formerly were thrifty merchants, never made peace without gaining something, but now they have become fine gentlemen, and ruin themselves by generosity.

You should have secured commercial advantages from Portugal, and so from the allied powers at the peace, but Lord Cast. became a courtier, and now you are insulted with commercial restrictions by every state in Europe, much more than when I shut the ports against you.

When I made a Frenchman a soldier, I deprived him of his peace and happiness; when a Russian is made a soldier, he thereby gains his freedom, and the countries he visits are all much finer than his own.

England does not take sufficient advantage of its naval strength, it acts like Francis, who had a field of artillery much finer than any which had been brought into action before his time, yet he lost the whole advantage of it by rushing sword in hand, at the head of a select body of troops, brandishing *la grande epee a la main* between his own artillery and the enemy—he denied the book attributed to him, said it was a good imitation." *Ed. An.*

—
Chymical Amusement; By Frederick Accum, Operative Chemist, &c. &c.

This amusing and instructive work will form a valuable addition to the Elementary Treatises on Chymistry already in the hands of the public. The author is well known both by his publications and his lectures; and by this little volume he has entitled himself to that praise which will never be denied to scientific professors who

communicate the result of their experience in a popular and attractive form.

"The following pages," says Mr. Accum, "have been written with a view to blend chymical science with rational amusement. To the student, they may serve as a set of popular instructions, for performing a variety of curious and instructive experiments, well calculated for illustrating the most striking facts which the science of chymistry has to offer. To give effect to this object, I have selected such experiments only, as may be performed with ease and safety in the closet; and the exhibition of which requires neither costly apparatus, nor complicated instruments. And that the experiments may be of greater value, than merely to afford amusement for a leisure hour, I have added the explanation to each individual process, in order to enable the operator to contemplate the phenomena with advantage, as particular objects of study, if his inclination should lead him that way."

The work comprises CIII interesting experiments, which, it will readily be acknowledged, when performed by a student himself are better adapted to fix the attention, and have a more permanent effect upon the mind, than either bare positions of precepts, or the rapid illustrations inseparable from public and popular courses of lectures.

— *Gent. Mag.*

A Case which lately occurred in the Royal Dispensary for the diseases of the ear, where a boy born deaf and dumb was restored to both hearing and speech, will show the rapid improvement in the medical practice of the present day. The pathology of the ear, neglected till of late, has now attained a vast importance by the institution of a dispensary for its diseases; and the subject of deafness being now taken up by the Royal College of Surgeons as the theme of their annual prize, will tend to throw additional light on this interesting malady.

ib.

Mode of ascertaining the comparative Value of each cow's milk in a dairy, (from the Farmer's Journal).

Linconshire, August 26, 1816.

SIR,—I have not observed that the valuable improvement communicated to the Oxfordshire Agricultural society by

their worthy president, Mr. Fane, of a method of ascertaining the comparative value of the milk of each cow in a dairy, has yet found its way into your paper. I trouble you with this to state the manner in which I have availed myself of it, with the complete approbation of my wife, her housekeeper, and her dairy maid.

The principle of the invention is, that if milk is poured into a glass and suffered to remain, the division between the cream that swims upon it, and the milk below, will be so plain and evident, that the depth of the cream may be easily measured; of course if the milk of any cow produces more cream than that of another, the difference may be correctly ascertained; this may be done in any glass vessel having upright sides: a tumbler, for instance, or, what is better, one of those glasses in which shopkeepers preserve their sugar plums and such like wares. If the depth of milk poured into a glass, be exactly 6 inches and 2-8ths, every 1-8th of an inch in depth of the cream swimming upon it, will be equal to 2 per cent. of the amount of the whole of the milk.

The apparatus I use consists of tubes of glass about 1-2 an inch in diameter, and about 11 inches long, fixed upright in a wooden frame, each tube having a line round it marked by the glassman exactly 10 inches from the bottom. At milking time each tube is filled up to the line with the milk of a cow; after standing 12 hours the cream which floats upon the milk is measured by a scale of 10 parts to an inch, as the whole depth of the milk and cream is 10 inches, each division will represent one per cent. of the whole; of course, if the milk given by a cow at a meal is one gallon, or 8 pints, and the thickness of the cream that floats upon its measures 14 divisions, multiply the number of pints of milk (8,) by the depth of the cream, 14 divisions, and the result will be, that the produce of the cream of that meal is 112, or one pint 12-100. These tubes may be bought of Mr. Newman, in Lisle Street, Leicester Fields, for 9d. each. Care must be taken to fill the tube as soon as the pail is taken from under the cow, for if any delay takes place, some of the cream will have ascended towards the top. The milk should be taken from the middle of the pail, and poured into

the tube without froth, which is done by dipping a cream pot below the froth and filling the tube from thence, after having struck off the froth with the blade of a knife.

Rich milk is not white but brown, as is evident by comparing the milk of different cows when in the glass tubes; by the colour of the milk a tolerable estimate may be made of its produce in cream. The richness of the cream may also be estimated by the colour of the cream floating on the tubes. The best Alderney cream has a yellow hue, almost as deep as the flower of the buttercup, while the cream of a Holderness cow fed upon sour grains is as white as chalk, as the cream separates itself. Rich milk first becomes white, and then takes a bluish hue.

Every dairy woman knows that the first milkings of a cow are almost without cream, and that the last pint or half pint which is drawn from the udder with difficulty, is almost entirely cream, hence the necessity of filling the tube from the whole of the milk yielded by a cow; and it may not be an improper caution to stir it about with a spoon to mix the cream and milk more regularly together, before the tube is filled.

It is proper to observe, that the quantity of cream that floats upon the milk in Mr. Fane's glasses, cannot be obtained by the present imperfect method of setting milk in shallow vessels, and taking off the cream by skimming; the whole quantity may be gotten by setting the milk in deeper vessels, and drawing it from under the cream by a syphon; it is evident from this, that the present system of managing our dairies is capable of much improvement,

Your humble servant, &c. H. S.

Death of a beggar.

Died, in Glen-street, Kilmarnock, aged 87, William Stevenson. He was originally from Dunlop, and bred a mason; but during many of the latter years of his life wandered about as a common beggar. Thirty years ago, he and his wife separated upon the strange condition, that the first who proposed an agreement should forfeit 100*l*. This singular pair never met again, and it is not now known whether the heroine yet lives. Stevenson was much afflicted, during the last two years of his life, with the stone. As his disease increased,

he was fully aware of his approaching dissolution, and for this event made the following extraordinary preparation.—He sent for a baker, and ordered 12 dozen of burial cakes and a great profusion of sugar biscuit, together with a corresponding quantity of wine and spirituous liquors. He next sent for the joiner, and ordered a coffin to be prepared for him. The grave-digger was then sent for, and a spot fixed upon in the church-yard of Riccarton, for his interment. Having made these arrangements, he ordered the old woman that attended him, to go to a certain nook, and bring out 9*l*. to be appropriated to defray the funeral charges. He told her at the same time not to be grieved, for he had not forgotten her in his will. In a few hours afterwards, in the full exercise of his mental powers, but in the most excruciating agonies, he expired. A neighbour and a man of business were immediately sent for, to examine and seal up his effects. The first thing they found was a bag containing large silver pieces, such as crowns, half-crowns, and dollars, to a large amount: in a corner was secreted, amongst a vast quantity of musty rags, a great number of guineas and seven-shilling pieces. In his trunk was found a bond for 300*l*. and other bonds and securities to a very considerable amount. In all, the property amounted to 900*l*. His will was found among some old paper, leaving to his house keeper 20*l* and the rest of his property to be divided among his distant relations. As it required some time to give his relatives intimation of his death, and to make preparations for his funeral he lay in state four days, during which period the place where he was resembled more an Irish wake, than a deserted room where the Scots lock up their dead. The invitations to his funeral were most singular; persons were not asked individually, but whole families; so that except a few relatives dressed in black, his obsequies were attended by tradesmen in their working clothes, bare-footed boys and girls, an immense crowd of tattered beggars; to the aged among whom he left sixpence, and to the younger three-pence. After the interment, this motley group retired to a large barn, where a scene of profusion and inebriety was exhibited almost without a parallel.

Gent. Mag.

Emperor of China's advice to his ministers, &c.

The following translation from the Pekin Gazette furnishes us with a document of high authority respecting the moral character of the Chinese; and evidence to the veracity or error of European travellers on that point, not easily to be refuted.

Govern with truth and sincerity, and order will be the result; if not, then anarchy will ensue. To an individual, a family, even to the sovereign and the whole empire, nothing further is requisite than truth.

At this moment great degeneracy prevails; the magistrates are destitute of truth, and great numbers of the people are false and deceitful. The magistrates are remiss and inattentive; the people are all given up to visionary schemes and infernal arts. The link that binds together superiors and inferiors is broken. There is little of either conscience or a sense of shame. Not only do they neglect to obey the admonitions which I give them; but, even with respect to those traitorous banditti, who make the most horrible opposition to me; it affects not their minds in the least degree; they never give the subject a thought. It is indeed monstrously strange! That which weighs with them is their persons and families; the nation and government, they consider light as nothing.

He who sincerely serves his country, leaves the fragrance of a good name to a hundred ages; he who does not, leaves a name that stinks for tens of thousands of years.

The utmost limit of man's life, is not more than a hundred years. What hearts have those, who, being engaged in the service of their sovereign, but destitute of talent, yet choose to enjoy the sweets of office, and carelessly spend their days.

The means used by the sages, to perfect their virtue, is expressed in one word, "Sincerity." Sincerity! or, in other words, Truth and Uprightness. Let my servants (the officers of the Empire) examine themselves, whether or not they can be sincere; whether or not they can be upright; I fear they will give but a poor account.

The virtue of the common people, is like the waving grain, (it bends with

every wind that blows.) If superiors have little truth or sincerity in their hearts, the disorderly intentions of the people will certainly be numerous. Small in the beginning, and not affecting the mass of the people, they gradually increase, till at last the bludgeon is seized, and rebellion and anarchy ensue.

In ancient times, the heads of rebellion, styled themselves Wang and Te, Kings and Emperors;* but it was never heard in ancient times, that any assumed the name of San hwang, (or the king of Heaven, the king of Earth, and the king of Men†). The hearts of the men of this age are daily degenerating.

As we are the superiors of this people, shall we bear not to exert our hearts and strength to the utmost—shall we not bend under the labour even to lassitude, if we may thereby save a ten thousandth part!

If in coming forward, or in retiring, the sole object be personal gain; does a man not lower himself thereby to the common mass; nay, sink low as the filth of the age. Think, what kind of men will future ages describe you! Will they not engrave infamy on your back!

For every portion of sincerity exerted by the officers of government, the nation receives a portion of felicity, and the people are spared a portion of misery. The prince and the people, alike depend on the officers of government. The happy state of things in the time of Tang and Yu,‡ was the result of the exertions of the officers of government.

Because of my moral defects, I met with the great convulsion which took place the last year. Day nor night can I banish it from my breast. My anxious and constant desire is, to bring things to a well governed state. How shall I dare to be remiss or inattentive to it? But my servants of late gradually forget the affair. When I call them into my presence, they say, "There is nothing wrong!"

O, alas!—The residue of the rebels, not yet taken! commotion excited by various reports! to sit down with repose is impracticable. Shall men still treat

* By this it would appear, that some person had recently assumed this title.

† Alluding to the fabulous ages of Chinese History.

‡ About the year of the world 1700.

it with indifference, and allow themselves to say, "There is nothing wrong!" If this may be endured, what may not be endured!"

I speak with the utmost sincerity of heart, and call upon all the officers of my court to act with sincerity of heart, and sincerely fulfil the duty of good servants. Thus they will aid my sincere wishes, and accord with my sincere declarations.—If you are able to disregard this, and consider the words of your sovereign as of no importance, you are indeed, harder than the rocks. You are unfit to be spoken to; and the fault of speaking to those who are unfit to be spoken to, devolves on me. But, it will be impossible for you to escape being charged by the pen of the historian, as false and treacherous deceivers. The distinction betwixt a patriot and a traitor, is expressed by the two words, "True, False." In the morning and at night, lay your hands upon your hearts, and you will understand without the aid of words.

[Pekin Gazette. Kea-king, 19th Year, 10th Moon, 2nd Day.

November 13, 1814.] *Asiatic Jour.*

We copy the following singular advertisement from the Madras Gazette of November 16th. Our readers may smile at the credulity of the Nowaub, but we believe him to have been very sincere in the expectations held out by his notice.

"Notice. Nawaub Majood Al Dowlah Behauder begs to inform his friends and the public, that the Mohurram Feast commences on Friday the 22d November instant, and will continue till the 30th of the said month of November; and Nawaub Majood Al Dowlah Behauder also begs to inform, that he will celebrate the said feast in the Mount Road, at a spacious upper roomed house, called Ubbausty Baug, at the corner of the road leading to the late Mr. Fallowfield's garden, and which will be very beautifully performed with abundance of lights, &c. The lighting, &c. will begin at seven every night, and end at three (3) in the next morning, with lights of every kind to amount of 50,000. The friends and public of every description who wish to come and see the same, no prevention will be made from the above said date to the end of November, in the Ubbausty Baug, or

place of worship. In the first entrance of the house a row of lights will be placed, and chairs, &c. will be put in a varandah facing the image; and also Nawaud Majood Al Dowlah Behauder trusts that gentlemen or ladies of any description will sit in the said varandah; there are railings put, and he trusts that no person will go within the same: and he further begs to inform that the same is a very devoted place, and if any person or persons make a supplication for any thing, such as for having issue, wealth, &c. and promising to make an offering at the said place, the deity will in the space of one year or six months comply with their request, for many persons of different description have supplicated many things which were complied with, and he further begs to state, that the same lighting, &c. will again be performed on the following days, viz. on the 2d December, 9th December, 19th December, 5th January, 1817, 6th January, 7th January, 8th January, 16th January, 17th January, 18th January." *ib.*

SIR.—I send for insertion in the Asiatic Journal an account of the dimensions of the great gun at Agra, as it is an object of universal admiration and has not yet been noticed in your work.

I am, Sir,

Your obedient humble servant,
20th Sept. 1817.

W. E.
Inches.

Diameter of the piece at the muzzle	32
Do. do. at the breach	36
Caliber	22 1-2
Diameter of the shot.	22
Length of the bore.	96
Do. piece.	114
Solidity of the piece . 62,494 cubic inches, weighing nearly . . .	23,435 lb, French.

The shot, if made of beat iron, would weigh nearly 1624 lb; if cast, in the proportion of 496 to 580.

Steel or forged iron weighs . . . 7.852

White marble do. 2.707

The gun weighs 334 factory maunds.

ib.

Trial of a Life Boat.—A short time ago, lieutenant E. Thrackston, R.N, exhibited before a number of merchants and ship-owners of Bristol, the buoyant properties of his newly invented life

boat, which, we are happy to say, exceeded the most sanguine expectations he previously entertained. Its other peculiar qualities and advantages are to be tried in a few days in the King's road. The extreme length of the boat is 21 feet, beam, 6 feet 6 inches, and is rowed with ten oars, double backed. It is constructed with canvas, in lieu of plank, (which possesses an advantage over plank, wants no butt ends to be stowed in case of accident,) and has cork bilge floats, which may be applied as life buoys, to throw out in cases where men may be washed overboard from a deck, with a large fender round the boat, and which from its elasticity, is capable of repelling any violent concussion. Without having recourse to the precarious assistance of air tubes, Mr. Thrackston has succeeded in gaining so much on the water-line, that the boat, (by the introduction of eight valves) discharges herself down to thwarts, a space of nine inches. She has a canvas cover, contrived in such a way as to possess the advantages of a deck, at the same time keeping the men dry, without being an incumbrance to their rowing. The keel is the last thing that goes on the boat, and is so contrived by the stem and stern posts working together with the elasticity of the timbers, which are sawn out of a straight piece of oak, and moulded into form by steam, that it is conceived impossible that the boat can ever be stove. She took on board 30 persons, when filled with water up to the valves, and had 28 standing on the gunwale, without the least danger of upsetting. Upon an emergency 60 persons might be stowed within her. She rows well and light on the oars when thus filled, and turns with great rapidity in her length. Boats may be built on a similar construction to any shape, and from the light, but very efficient materials of which they are composed, lieut. Thrackston is convinced, from the experiments which he has made, that, if generally adopted, they will be found fully to answer every common purpose of an appendage to a vessel, besides possessing the invaluable advantages of a life boat. *Lit. Pan.*

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Account of the Order of Knights of Malta, or St. John of Jerusalem.

The usual title of these Knights of Malta, is of no older date than the

settlement of the island of Malta; their name, according to their institution, is Knights of St. John of Jerusalem. The design of the foundation was for the exercises of hospitality, and for the relief and assistance of the poor pilgrims who came from all parts of the world to visit the holy places. At first the order was composed of persons of mean rank or quality, living under a superior: this first superior was a man of the name of Gerard, a Frenchman by birth, who had built an hospital in the same place where it was pretended Zacharias used to perform his devotions, and dedicated it to St. John the Baptist. This Gerard, who might be reckoned the founder of the order, was a man of a very holy life, and devoted his time to performing the offices of hospitality, according to his profession. When Jerusalem was besieged by Godfrey of Bouillon, he carried bread every night to the Christian army; but being suspected, he was narrowly observed, and at length surprised in the very act. He was immediately seized, and carried before the governor with his burden of loaves, which, says the legend, were miraculously changed into stones as they were taken out of the bag; so that he was fully acquitted.

On the day the Knights are professed, they must brandish a sword thrice, as if it were in defiance of the enemies of Christ. Afterwards they take the vows of poverty, chastity, and obedience. The order is composed of four different classes; or rather there is only one, which tolerates the rest out of charity. The first is that of the Noble Knights, who before their admission must prove their nobility in the presence of certain commissioners who are sent to examine their pedigree upon the place. They wear a cross of gold enamelled, hanging at one of their button-holes. The second is the class of Priests, who, for the most part, are not noble, yet wear a cross as the first. The third is that of the Serving Knights, who are not noble, and only wear a cross of white satin sewed upon their garment, and of a different figure from that of the Nobles. The fourth and last is composed of the Grand Master's menial servants, or of some indigent persons to whom he grants that favour, and which brings them no advantage and but little emolument; their

cross is like that of the Serving Knights. Of all the four classes the first only can aspire to the dignities of the order, that is, to the title and office of Commanders, Grand Crosses, and Grand Master. The two first are given in order according to their seniority.

All the employments and offices of honour and profit are at the disposal of the Grand Master, who is obliged to choose one of the nobles.

The members of the second class serve at the altar, and are only capable of ecclesiastical preferment: thus they may obtain the offices of Vicars, Canons, and Grand Prior, which last is the highest dignity within the reach of their ambition.

The Serving Knights are incapable of being promoted to the dignity of a Grand Cross, or of enjoying a commandery by right of seniority; but they may possess commanderies of grace, which the Grand Master sometimes bestows on them, either as a particular mark of his kindness, or as a reward of valour.

As for the Grand Master's Knights, who compose the fourth class, they receive no other honour than the title of Knights of St. John. *La Belle Assem.*

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Anecdote of Dr. Smollet.—When Dr. Tobias Smollet was a youth, he entangled himself in a foolish bet with a blustering gentleman, who vaunted he never had lost a wager, nor had been made an April fool in all his life. Mr. Smollet, provoked by this boast, and heated with wine, staked a larger sum than he could afford to pay, that before the expiration of three years, this wiseacre would at once become an April fool and lose a bet. The terms were accepted, and settled according to the rules on such occasions. When Mr. Smollet next day reflected upon the risk he incurred, he was very unhappy. This anxiety did not escape the notice of a lady his near relation, and being pressed by her kind solicitude, he intrusted to her his involvement. She lectured him on his temerity, but bade him not despond.—On the first of April this lady engaged her brother to invite eleven married couples, who, with himself and his wife, made twelve. She herself fixed with both the gentlemen to dine with her, and try to make each other April fools. The dinner

had been announced in the drawing-room before Mr. Smollet appeared: his cousin rated him for being so late. He said he had been detained by a person who tried to persuade him that her brother had ordered a great feast, and forgot to ask a *single* person to partake of it. The lady said her brother was sometimes absent, but could not possibly have committed a blunder so absurd. Mr. Smollet's antagonist was a person of great curiosity and credulity. He offered to go after dinner to ascertain how such a strange story could be invented.—There was not a *single* person, for all were married. Mr. Smollet won the bet, and gave the amount to a distressed family, as he could hardly think he had fairly gained an exemption from the forfeit. *ib.*

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Anecdote of Marcel, the French Dancing-Master.—This famous disciple of Terpsichore obtained in his old age a pension from the French government. One of his young pupils, whose family had, by their great interest and credit at court, procured him this favour, hastened to Marcel, in order to have the pleasure of presenting him with his brevet, which she put into his hand, hoping to cause him an agreeable surprise. Marcel immediately dashed it on the floor. "Is it thus, mademoiselle," said he, "that I have taught you to present any thing? Pick up the paper, and give it me in a proper manner."—The young lady, cruelly humbled at the way this favour was received, when she expected so different a result, picked it up, with tears in her eyes, and offered it in the most graceful manner she was capable of.—"Very well, mademoiselle," said the old dancing-master, "very well: I will take it now, and I thank you, though your elbow was not quite rounded enough." *ib.*

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Eccentric Character. (*From the Life of W. Hutton, F.A.S.S.*)—The greatest wonder I saw was Phebe Brown. She was five feet six inches in height, is about thirty, well proportioned, round face, and ruddy; has a dark penetrating eye, which, the moment it fixes upon your face, sees your character, and that with precision. Her step (pardon the Irishism) is more manly than a man's, and can cover forty miles a day. Her common dress is a man's hat, coat,

with a spenser over it, and men's shoes. She is unmarried.

She can lift one hundred weight in each hand, and carry fourteen score; can sew, knit, cook, and spin, but hates them all, and every accompaniment to the female character, that of modesty excepted. A gentleman at the New Bath had recently treated her rudely: "She had a good mind to have knocked him down." She assured me she never knew what fear was. She gives no affront, but offers to fight any man who gives her one. If she never has fought, perhaps it is owing to the insulter having been a coward, for the man of courage would disdain to offer an insult to a female.

Phebe has strong sense, an excellent judgment, says smart things, and supports an easy freedom in all companies. Her voice is more than masculine, it is deep toned. With the wind in her favour, she can send it a mile; she has neither beard nor prominence of breast; she undertakes any kind of manual labour, as holding the plough, driving a team, thatching the barn, using the flail, &c.; but her chief avocation is breaking horses, for which she charges a guinea a week each. She always rides without a saddle, is thought to be the best judge of a horse or cow in the country, and is frequently employed to purchase for others at the neighbouring fairs.

She is fond of Milton, Pope, and Shakespeare, also of music; is self-taught, and performs on several instruments, as the flute, violin, and harpsichord, and supports the bass viol in Mallock church. She is a marks-woman, and carries the gun on her shoulder. She eats no beef or pork, and but little mutton. Her chief food is milk, which is also her drink, discarding wine, ale, and spirits. *ib.*

Description of Mad. de Stael's funeral.

On Saturday, the 26th of July, the remains of Madame de Stael arrived at Coppet, in a hearse, followed by M. de Stael and M. de Schlegel. Monday, the 28th of July, was the day fixed for depositing the coffin in the mausoleum wherein M. and Madame Neckar are interred. It is a square monument of black marble, which stands in a kind of thick grove, walled in, and where Madame de Stael was frequently accustomed

to walk alone. Over the opening of the tomb is a work in *basso relievo*, the subject of which was given by Madame de Stael: that lady is there represented kneeling, weeping over the sarcophagus of her parents, who seem to be holding out their hands to her from heaven. The last wish of Madame de Stael was, that her ashes might rest with theirs. The members of the municipal corps at Coppet requested that they themselves might be the bearers of the coffin, and M. le Duc de Noailles came from Rolle to make the same request. Those who followed the corpse were very numerous: besides the friends and relations of Madame de Stael, several of the first families in Geneva and its environs joined the procession. People of every class, and of all ages, thronged in crowds to see the funeral pass by. The pastor of the parish, M. Barnaud, pronounced in the castle of Coppet, after the burial, a religious discourse, extracted chiefly from the sermons of M. Neckar. An awful silence reigned amongst all the spectators during the procession of the funeral to the tomb.

After the funeral a charitable donation was given to the poor of the place, whom, during her life, Madame de Stael had constantly assisted and made happy. *ib.*

Madame de Stael's Memoirs of the Private Life of her Father, are nearly ready for publication, in octavo, in French and English. *M. Mag.*

Mr. Beauford, M.A. of Dublin, is preparing for the press, a New Theory of Magnetism, especially the phenomena which relate to the variation of the magnetic needle; deduced from observation, and demonstrated on true philosophical and mathematical principles. In the investigation, magnetism in general is ascribed to the effect of caloric on the globe of the earth. In magnetism, at least as far as it affects the needle, (the author says,) there are four magnetic poles near the terrestrial poles; which magnetic poles in each class have a rotation from east to west, proceeding from the effect of the perturbing powers of the sun and moon, in the difference between the centripetal and centrifugal forces. The revolution of the northern magnetic poles

round the earth's axis and poles is complete in 1073 years, and that of the southern in 864 years. The northern affirmative magnetic pole has this year (1817), at the time of the vernal equinox, lat. 71 deg. 24 min. N., lon. 83 deg. W.; the negative pole, lat. 82 deg. 12 min. N., lon. 114 deg. 19 min. E. The southern affirmative magnetic pole has lat. 65 deg. 56 min. S., lon. 156 deg. 58 min. E.; the negative, lat. 76 deg. 46 min. S., lon. 264 deg. 26 min. E. from Greenwich. And the places of the mean or operative pole derived from the effect of the four other poles, and to which the needle tends—northern lat. 73 deg. 36 min. N., lon. 84 deg. 54 min. W.; southern lat. 68 deg. 45 min. S., lon. 145 deg. 30 min. E. From the effects and places of these mean operative poles proceed the various phenomena of the magnetic needle; as the variation, dip, position, nutation, rotation, and secular variation. *ib.*

M. Levrat, a French chymist, has discovered that the seed of the yellow water flag of marshes, known to botanists by the name of *Iris pseudacerus*, when dried by heat and freed from the friable shell, which envelopes it, produces a beverage similar to coffee, but much superior in taste and flavour. *ib.*

A quantity of cocoa-nut oil has recently been introduced into this country from Ceylon. It may be very advantageously employed as a substitute for *spermaceti* oil, as it is considerably cheaper, burns with a clearer flame, and is free from smell or smoke. It will be found useful also in the manufacture of soap, candles, and the finer articles of perfumery; and is likely to become a source of great revenue in Ceylon, and of singular importance to this country. Soap made with it costs but ten per cent. more than tallow-soap. Shops which introduce this valuable article in town or country, may calculate on a monopoly of the oil, soap, or candle trade, as it will be universally preferred by good house-wives. *ib.*

Botany encouraged.—There seems to be a disposition among the public establishments on the continent to promote the study of Botany, by communicating to the public a knowledge of what

rarities they respectively possess. To this we may attribute the publication by M. de Schrank, director of the Botanic garden at Munich, of a work, the first fasciculus of which has appeared under the title of *Plantæ rariores Horti Academici Monacensis Fasc. I.* fol. The plates are lithographic, or stone printing, and coloured; they are executed by the *Lithographic Institution*.

To the same disposition we are to attribute the appearance of *Horti et Provinciæ Veronensis Plantæ novæ seu minus cognitæ quas descriptionibus et observationibus exornavit Cyrus Pollini*. The plates are engraved at the expense of the Agricultural Society at Verona.

To these must be added the *Flora Napolitana ossia Descrizione &c.* containing a description of the indigenous plants in the kingdom of Naples, by Dr. Tenore, director of the garden of plants.

This work was begun under the command of Murat, *ci devant* king of Naples; and so far is to his credit. It is now continued, and is likely to be encouraged by public patronage, as the *Flora* of the kingdom. It is a superb and expensive work. *Lit. Pan.*

In one of the latter numbers of the Magazine of the society of Natural History at Berlin, is a table of thermometrical observations, made day by day, during the course of one hundred and fourteen years, collected by M. Gronau. This lapse of time implies the attention of succeeding generations; and marks the persevering disposition and accuracy of modern adepts in the sciences. Such registers must eventually furnish many curious and instructive facts. *ib.*

NUMBER OF KNOWN VEGETABLES—
The number of Plants yet known amounts, according to the calculation of Baron Von Humboldt, to 44,000, of which 6000 are agamous, that is, plants which have no sexual organs, such as champignons, lichens, &c. Of the remainder there are found

In Europe.....	7,000
In the temperate regions of Asia	1,500
In Equinoxial Asia and the adjacent Islands.....	4,500
In Africa.....	3,000
In the temperate regions of America in both hemispheres	4,000
In Equinoxial America.....	13,000

In New Holland and the islands of the Pacific Ocean. } 4,000
38,000
Gent. Mag.

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The imperial Academy of Medicine and Surgery at Petersburg.—A simple school of Medicine was founded at Petersburg in 1706, and was successively improved, enlarged, and raised to the rank of an Academy. In 1808 this institution received a new organization; the number of the Professors' chairs was augmented, by the establishment of a chair for the Professor of the Veterinary Art, for one of Pharmacy and for a clinical Professor.

The course of instruction in this Academy, occupies four years, and is divided in the following manner:—

The first year, Mineralogy, Zoology, Philosophical Mathematics, Osteology, Syndesmology and Myology.

Second year, Chymistry, Anatomy, Physiology, Practical Anatomy, and Botany.

Third year, Pathology, Therapeia, Surgery, Pharmacology, and the art of Formulæ.

Fourth year, Practical Medicine Midwifery, disorders of pregnant and lying-in women, of children, Legal Medicine, and medical principles in aid of the public police.

All these courses are delivered in the Russian language, in halls purposely fitted for the attendance. The veterinary students are instructed in Zootomy, in comparative Physiology, in Pharmacology, in Pathology, in Therapeutics, in Dietetics, in the knowledge of studs, and in Epizootics. The students in Pharmacy frequent all the course of medical study, beside receiving particular instructions in Pharmacy.

The establishments attached to this Academy are,—

The *Library*, founded in 1756, and augmented from time to time by donations and purchases; so that it now forms a total of 16,282 works, in 25,642 volumes. Beside the works of physicians, ancient and modern, it contains many other scientific works and rare editions; and since 1815, all Russian works with their translations. This library also contains a collection of dried plants, from Russia, Siberia, the Ukraine, and foreign countries.

The *cabinet of Natural Philosophy*,

founded in 1795, and greatly enlarged by purchases made in England, and also in Russia—the instruments are arranged in classes—mathematical, philosophical, mechanical, astronomical. An observatory is attached to this cabinet.

The *cabinet of Mineralogy* comprises 4940 articles; mostly of Russian origin.

The *cabinet of Zoology* comprises 4899 numbers.

The *cabinet of Chymistry* and that of *Zootomy* are not yet arranged.

The *Botanic garden* is perfectly in order.

The *Anatomical cabinet* includes 1584 preparations, among which are 256 microscopic; with many drawings, models in plaster, wax, and an Egyptian mummy.

The *cabinet of Surgery* contains the greater part of instruments formerly used, as well as those of modern execution; with an extensive collection of bandages, artificial members, models of beds for the sick, &c.

The *cabinet of Pharmacy* is furnished with simple medicaments, and compounds prepared by the students.

The *cabinet of Midwifery* contains different instruments, osteological preparations, abortions, &c.

The *Clinical Institution* reckons thirty beds, and receives patients in every state and condition. The number of sick treated in this ward, amounts to 500 yearly,

The Academy also possesses a church, an infirmary for the students, and a pharmacy.

The general administration is under the immediate direction of the minister of public instruction. The number of scholars was originally fixed at 720; but, at present, the number is not more in the Academy at Petersburg than 350, and in that of Moscow 255. *ib.*

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Egyptian wheat.—M. Van Houwermeeren, mayor of Lede, in East Flanders, has tried the experiment of growing Egyptian corn: he has discovered that a single grain has produced 77 stalks (in general from 50 to 70) and that the ear of each stalk is six sided, each side containing from 14 to 15 grains, some even 16; the result of which is a single grain produces 6468.

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Whatever may have been the wis-

dom of that display of national pride which caused the failure of the late embassy to China, it seems likely to afford the literary world considerable gratification in the ensuing winter. Three considerable works have already been announced, and each of them appears to lay claim to public attention:—

The *first* is by Dr. Clarke Abel, physician and naturalist to the embassy, and is entitled, *Personal Observations made during the progress of the British embassy through China, and on its voyage to and from that country, in the years 1816 and 1817.* It will comprise the author's personal narrative of the most interesting events which befel the British embassy, from the time of its leaving England to its return; together with his remarks on the geology, natural history, and manners of the countries visited. It will be printed in quarto, and be illustrated by maps and other engravings, under the sanction of the Hon. East-India company, and be dedicated by permission to lord Amherst.

The *second* is by George Ellis, esq. one of the commissioners of the embassy, and will form a quarto volume, with an atlas of engravings.

And the *third* is by Capt. Basil Hall, of the *Lyra*, and will relate chiefly to the nautical concerns and discoveries, with new charts, &c. *Mon. Mag.*

Dr. Buchanan will immediately put to press, an account of the kingdom of Nepaul. This gentleman practised as a physician for several years in that country, during which time he was employed in collecting information relative to its natural, civil, and political condition. The value and accuracy, as well as vast extent, of Dr. Buchanan's researches concerning this part of India, are well known. *ib.*

Mr. Barlow, one of the mathematical teachers at Woolwich, will publish early in October, an *Essay on the Strength and Stress of Timber*, founded upon a course of experiments made at the Royal Military Academy. A new theory will be developed, founded upon the results of numerous experiments on a great variety of subjects, assisted by communications from several gentlemen of great scientific research. The work will include an

historical review of former theories and experiments, and be illustrated by numerous tables and plates. *ib.*

A Narrative is printing of Discoveries in Africa by Mr. Burkhardt. He has for some years been travelling in the countries south of Egypt, in the disguise of an Arab, and by the name of *Shekh Ibrahim*, under the auspices of the African Association. He is still, it is said, prosecuting his discoveries, and entertains sanguine hopes of being able to reach Tombuctoo, from the east, and proceed from that city to the western coast. This would perfect the geography of northern Africa. *ib.*

The Rev. C. Maturin, author of the tragedy of *Bertram*, is printing a tale, in three volumes. *ib.*

The Diary of John Evelyn, esq. printed from the original manuscripts in the library at Wotton, embracing the greatest portion of the life of the celebrated author of "*The Sylva*," and other works of celebrity, is nearly ready for publication. This extremely curious and valuable journal contains his observations and remarks on men, manners, the politics, literature, and science of his age, during his travels in France and Italy; his residence in England towards the latter part of the protectorate, and his connexion with the court of Charles II, and the two subsequent reigns; interspersed with a variety of anecdotes of the most celebrated persons of that period. The work will be enriched with original private letters from Sir Edward Nicholas, (secretary of state,) to king Charles I. with the king's answers, in his own hand-writing, now first given to the world. It will also contain selections from the correspondence of John Evelyn, and numerous letters from sir Edward Hyde, (lord Clarendon,) to sir Edward Nicholes and Richard Brown, during the exile of the British court. The whole work will, of course, be highly illustrative of the events of those times, and will afford many new facts to the historian and politician. The work will be comprised in two volumes, royal quarto, and will be embellished with several portraits, engraved by the best artists, partly from the most exquisite drawings of

celebrated masters, now in the possession of the Evelyn family; and with other interesting plates. We anticipate great pleasure from its perusal, and we doubt not that our readers in general will partake of our feelings.

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ib.

The Memoirs of Dr. Benjamin Franklin, written by himself to a late period, and continued to the time of his death by his grandson, will appear on the first of November. It will form a volume in quarto, and be printed uniformly with the private correspondence.

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ib.

Anecdote on Benserade.—Benserade once received a good caning for lampooning the Duke d'Epemon.—Some days after he appeared at court, but being still lame from the chastisement he had received, he was obliged to support himself on a cane. A wit, who knew what had happened, told it in a whisper to the Queen. Her majesty asked Benserade if he had the gout?—"Yes, madam," replied the satirist; "and therefore I use a cane." "Not so," interrupted the malignant Bautur; "Benserade in this imitates those holy martyrs, who are always represented with the instrument which occasioned their sufferings."

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La Belle Ass.

Royal Promotions.—The Sultan Osman having observed a gardener plant a cabbage with a certain dexterity and grace, it so attracted his imperial eye, that he shortly after rewarded this planter of cabbages by creating him *Beglerbeg*, or Viceroy of the Isle of Cyprus.

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ib.

Mark Anthony gave the house of a Roman citizen to a cook. Louis XI, promoted a poor priest whom he found sleeping in the porch of a church, only that the proverb might be verified, that to lucky men good fortune will come even when they are asleep.

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ib.

Henry VIII, raised a servant to considerable dignity because he had taken care to have a boar roasted whole, when his majesty took it in his head to wish to feed on one.

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ib.

When Cardinal de Monte was made Pope, he bestowed a cardinal's hat on a servant for the great attention he paid to his monkey!

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ib.

De Chamillart, the minister of France, owed his promotion to being able to beat Louis XIV, at billiards. He retired with a handsome pension after ruining the finances of his country.

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ib.

French and English Translations.—

A Frenchman translating a passage from Swift, which mentioned that an officer had been *broke* by the duke of Marlborough, literally translated it *roue*—broke alive upon a wheel!

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ib.

An English translator reading the phrase of *Dieu DEFEND l'adulterere*, construed it into the term of God *defends* adultery!

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ib.

Literary Anecdote.—A young man from a remote province came to Paris with a play, which he considered as a masterpiece. M. l'Etrole cruelly criticised it, and showed the youthful bard a thousand glaring defects in his *chef d'œuvre*. The humbled author immediately burnt his tragedy, returned home, took to his chamber, and died of vexation and grief.

—
ib.

Cummyns, a celebrated Quaker, died of an anonymous letter in a public paper, "Which," said he, "fastened on my heart, and threw me into this slow fever."

—
ib.

Racine, who died of his extreme sensibility to a rebuke, confessed that the pain which one severe criticism inflicted, outweighed all the applause he could receive. As Israeli, from whom we have gleaned the above anecdotes, elegantly and feelingly remarks, "The feathered arrow of an epigram has sometimes been wet with the heart's blood of its victim."

—
ib.

Anecdote of Sir Walter Raleigh.

One morning when this illustrious character was deeply engaged, during his confinement in the Tower, in composing his *History of the World*, a disturbance, occasioned by a fray, took place in the court-yard, exactly below his window. Sir Walter was unable to see the occurrence, but he inquired of the first person who entered his room, what it was? The person gave him a full account, as he was an eye

witness to what had happened. Shortly after another friend dropped in, and the conversation turning on the recent fray, Sir Walter asked him if he had been present? To which he received an answer in the affirmative, followed by an account totally different from the preceding one. This narrator had scarcely gone out, when a third person entered; and he, having been also an eye witness, gave a recital no less different from the other two than they had differed from each other. No sooner was sir Walter alone than he began to meditate deeply on this circumstance. "Good God," said he to himself, "how is it possible I can pretend to arrive at any certainty respecting events which have taken place three thousand years ago, when I cannot obtain a correct account of what took place under my own window during the last three hours?" The impression, it seems, was so strong on his mind, that he threw the nearly finished manuscript of his ancient history into the fire. *B. Assem.*

Russia. New Voyage of discovery round the World.—A fourth expedition for visiting distant parts, sailed from the port of Cronstadt, September 9, 1816. The Russian American Company purchased for this purpose the American ship Hannibal, that on board of which general Moreau returned to Europe.

This name was changed to that of Kutusow; and her companion was the Suwarow. The command of this expedition was given to captain Hagemester, the same officer as commanded the Neva, during the expedition under captain Krusenstern. We believe that we have mentioned this before; but not with these circumstances; and that intelligence has lately been received from these ships, *via Kamtschatka.* *ib.*

France.—Among the new journals planned and instituted in France, is one that distinguishes itself by its address to those professions which use the learned languages:—*Hermes Romanus*, the Latin Mercury, by J. N. Barbier-Vemers. It is printed in 12mo.; and professes the intention of restoring the Latin of France to the just purity of the language. As we know his majesty Louis XVIII, to be an excellent Latin scholar, we pay more attention to his report on this work, than to most others that fall from the lips of sovereigns. It is affirmed that he should say to the author, "Your work is useful to the classical student, and agreeable to the friends of letters; continue to give us good latin; only those who are well grounded in latin, can well understand the French language." The remark may be applied to other languages beside the French.

The following lines were never published in England, though several copies were printed and presented by the author to his friends. We are indebted to the politeness of a gentleman just arrived from England, for the manuscript copy, and for the above information, there can be no doubt of the genuineness of the piece, even if it were possible to disregard internal evidence. We recognize immediately the strong feeling that characterises Lord Byron's writings, and much of the poignant and well directed satire, that first rendered him celebrated. The allusions in this little production, are peculiarly happy, and we have again occasion to remark, that few poets who have written much, have so long sustained in this respect, the character of originality. There is something so generous, and high minded, in his attempt to call forth the shame of a certain personage, that we cannot avoid noticing it; unfortunately the only method, by which he could in any way avenge the wrongs of neglected merit, was to excite our sympathy by the gloomy picture he has drawn of expiring genius, and to rouse our indignation by exhibiting in its true colours, the "mockery of woe" that insulted the remains of Sheridan.

MONODY

On the Death of Richard Brinsley Sheridan, Esquire.

BY GEORGE LORD BYRON.

Yes grief will have way—but the fast falling tear
Shall be mingled with deep execrations on those

Who could bask in that Spirit's meridian career,
 And yet leave it *thus lonely* and dark at its close.
 Whose vanity round him, flew only while fed
 By the odour his fame in its summer time gave
 Whose vanity now with quick scent for the dead,
 Reappears like a *Vampire* to feed at his grave!
 Oh! it sickens the heart to see blossoms so hollow;
 And spirits so mean, in the great and high born,
 To think what a long line of titles may follow
 The *relics* of him who died *friendless and lorn!*
 How proud they can press to the funeral array
 Of him whom they shunn'd in his sickness and sorrow,
 How *bailiffs* may seize his *last blanket* to day
 Whose *pall* shall be held up by *nobles* to morrow!
 And thou too, whose life a sick epicure's dream,
 Incoherent, and gross! still grosser had pass'd,
 Were it not for that cordial and sweet cheering beam
 Which his friendship, and wit, o'er thy nothingness cast,
 No—not for the wealth of the land that supplies thee,
 With millions to heap upon foppery's shrine;
 No—not for the riches of all who despise thee,
 Tho' this would make Europe's whole opulence mine,—
 Would I suffer what e'en in the heart that thou hast,
 All mean as it is, must have consciously burned
 When the pittance which shame had wrung from thee at last,
 And which found all his wants at an end was returned:
 "Was this then the fate," (future sages will say,
 When *some* names shall live but in History's curse,
 When truth will be heard these Lords of a day,
 Be forgotten as fools, or remembered as worse)—
 "Was this then the fate of that high gifted man
 The pride of the palace, the bower, and the hall,
 The orator, dramatist, minstrel, who ran
 Through each mode of the lyre; and was master of all!
 Whose mind was an essence compounded with art,
 From the finest and best of all other mens' powers,
 Who ruled like a wizard the world of the heart,
 And could call up its sunshine or bring down its showers,
 Whose humour, as gay as the firefly's light
 Play'd round every object and shone as it play'd,
 Whose wit in the combat as gentle as bright
 Ne'er carried a heart stain away on its blade:
 Whose eloquence brightning whatever it tried
 Whether reason, or fancy, the gay or the grave,
 Was as rapid, as deep, and as brilliant a tide
 As ever bore freedom aloft on its wave."
 Yet—such was the man, and so wretched his fate,
 And thus, soon or later, shall all have to grieve,
 Who waste their morns dew in the beams of the great
 And expect 'twill return to refresh them at eve;
 In the wood of the north, there are insects that prey
 On the brains of the Elk till his very last sigh,
 Oh! genius! thy patrons more cruel than they
 First feed on thy brains, and then—leave thee to die!

Lines written by the late Right Honourable Richard Brinsley Sheridan.

The following lines have been handed to us by the gentleman to whose pen we are indebted for the biographical notice of the late Mr. Sheridan. They are interesting as an elegant effusion of that great man, written at a time when the army of invasion under Napoleon Bonaparte in 1804, was expected every tide, to make a descent upon the British shores, and may rival the strains of Turtæus, animating the Greeks to battle; for vigour of sentiment, ardent patriotism, and forcible appeal, calculated to rouse every energy of human action.

An Address to the British Volunteers spoken by Mr. Kemble at Drury-Lane Theatre.

IN Spartan bands to wake heroic fire,
 Renown'd Turtæus strung his martial lyre;
 Turtæus weak and lame, unskill'd to wield
 The flying spear or grasp the pond'rous shield.
 Nor by experience taught in just array,
 To form the files or guide the doubtful fray,
 Yet heaven inspir'd he knew beyond controul,
 With strains sublime to rouse the torpid soul—
 Swell with proud hopes the heart, and by his breath
 Kindle the love of fame, the scorn of death.
 And shall the British muse 'midst war's alarms,
 In silence, rest nor call her son's to arms?
 Shall Britons yield an unresisting prey,
 And own a base usurper's foreign sway?
 No—when you march to guard your sea-girt shore
 Return victorious or return no more.
 Greece, in her freedom's most propitious hour
 Wag'd impious wars in quest of spoil or power;
 And Rome, through many an age unjustly brave
 Fought to oppress and conquer'd to enslave.
 E'en the bright wreaths our Edwards, Henrys claim,
 Crown'd not the cause of freedom but of fame;
 While fond ambition, with misguided zeal,
 Sought England's glory more than England's weal.
 But when of old to chase a foreign host,
 The painted guardians of our Albion's coast,
 O'er her white cliffs descending from afar,
 On Cesar's legions pour'd the tide of war—
 When scythed chariots swept the ensanguin'd plain,
 Then bards enraptur'd sung this patriot strain;
 Ye generous youths who guard the British shore,
 Return victorious or return no more.
 Again Britannia sounds her just alarms,
 Nor lures by interest, or ambition's charms,
 But prompts to deeds which fairer trophies yield
 Than graced in Agincourt's immortal field;
 And bids you guard in free and gallant strife
 All that adorns, improves, or sweetens life,
 Your homes, by faithful love and friendship blest
 Each pledge of love now smiling at the breast:
 Your daughters fresh in bloom, mature in charms,
 Doom'd, should he conquer, to the spoiler's arms:
 Your sons, who hear the tyrant's threats with scorn,
 The joys, the hopes of ages yet unborn,
 All—all endear this just this sacred cause,
 Your sovereign's throne, your freedom's faith and laws
 Champions of Britain's cherish'd rights, ye stand,
 Protect, preserve, avenge your native land,
 For lo! she cries amidst the battle's roar,
 Return victorious or return no more.